

Manual on Intrapreneurship and Management for Farmer Producer Companies

V. Padmanand | Sushil Khodwekar | Kunal Sood



World Bank Assisted

Maharashtra Agricultural Competitiveness Project
Agri-Business Promotion Facility - Grant Thornton India LLP

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List of Abbreviations

ABPF	Agri-Business Promotion Facility
ACABC	Agri- Clinic and Agri- Business Centre
ADB	Asian Development Bank
AFC	Association of Farmer Company
AGM	Annual General Meeting
AGMARKNET	Agriculture Marketing Information Network
AIDIP	Agribusiness Infrastructure Development Investment Program
AMC	Annual Maintenance Contracts
AOA	Articles of Association
APEDA	Agriculture and Processed Foods Products Export Development Authority
APLM	Agriculture Produce and Livestock Marketing
APMC	Agriculture Produce Market Committee
AQL	Acceptable Quality Level
ARCs	Agriculture Resurch Centres
ASA	Action for Social Advancement
ASIDE	Assistance to States for Development of Export Infrastructure
ATMA	Agriculture Technology Management Agency
B2B	Business to Business
B2C	Business to Consumers
BCP	Better Cotton Programme
BDS	Business Development Service
BEP	Break Even oint
BHP	Brake Horse Power
BIS	Bureau of Indian Standards
BMP	Better Management Practices
BoD	Board of Directors
BOI	Bank of India
CA	Control Atmosphere
CAD	Computer Aided Design
CAGR	Compound Annual Growth Rate
CAR	Confederation of Ayurvedic Renaissance
CC	Cash Credit

CCs	Co-Operative Companies
CCRI	Central Coir Research Institute
CDP	Cluster Development Programme
CEO	Chief Executive Officer
CETP	Common Effluent Treatment Plant
CFC	Common Facility Centre
CFTC	Commodity Future Trading Commission
CFTRI	Central Food Technology Research Institute
CGF	Credit Guarantee Fund
CGS	Credit Guarantee Fund Scheme
CGTMSE	Credit Guarantee Trust for Micro and Small Enterprises
CIFT	Central Institute of Fisheries Technology
CIKS	Centre of Indian Knowledge System
CIP	Cleaning in Process
CLCSS	Credit Linked Capital Subsidy Scheme
CLE	Council for Leather Exports
CLRI	Central Leather Research Institute
CONCOR	Container Corporation of India
CP Seeds	Charoen Pokphand Seeds (India) Pvt. Ltd.
CPIS	Coconut Palm Insurance Scheme
CS	Cold Storage
CSF	Critical Success Factors
CSO	Central Statistical Organization
CSTPS	Chandrapur Super Thermal Power Station
CT	Computer Tomography
CtP	Computer to Plate
CWC	Central Warehousing Corporation
DA	Daily Allowance
DCS	Distributed Control System
DIC	District Industries Centre
DILC	Dairy Industry Loan Council
DMI	Directorate of Marketing Inspection
DML	Direct Marketing Licence
DPDC	District Planning & Development Committee
DPIP	District Poverty Initiatives Project
DSC	Development Support Center
DSCR	Debt Service Coverage Ratio
EAPCL	Ektha Apparel Producer Company Limited
ED	Entrepreneur Development
EDIs	Entrepreneurship Development Institutes

EGCGF	Equity Grant and Credit Guarantee Fund
EOQ	Economic Order Quantity
EPC	Export Promotion Council
ERP	Entrepreneur Resource Planning
ETP	Effluent Treatment Plant
EU	European Union
F&V	Fruits and Vegetables
FBG	Farmer Business Groups
FCO	Fertilizer (Control) Order
FCSC	Farmer Common Service Centre
FDDI	Footwear Design and Development Institute
FDI	Foreign Direct Investment
FFV	Fresh Fruits and vegetable
FI	Financial Institution
FMC	Forward Market Commission
FMCGs	Fast Moving Consumer Goods
FPCs	Farmer Producer Companies
FPOs	Farmer Producer Organisations
FSSAI	Food Safety and Standard Authority of India
FWWB	Friends of Women's world Banking
GAP	Good Agriculture Practices
GDP	Gross Domestic Product
GI	Geographical Indication
GLN	Global Location Numbers
GMA	Grocery Manufacturers Association
GMP	Good Manufacturing Practice
GoI	Government of India
GoM	Government of Maharashtra
Govt.	Government
GST	Goods and Service Tax
GT	Grant Thornton
GTIN	Global Trade Item Number
HACCP	Hazard Analysis and Critical Control Point
HMC	Horizontal Machining Centre
HP	Horse Power
HUF	Hindu Undivided Family
IAs	Implementing Agencies
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development

IFFCO	Indian Farmers Fertiliser Cooperative Limited
IHCDP	Integrated Handloom Cluster Development Programme
INR	Indian Rupee
INSIMP	Intensive for Nutritional Security through Intensive Millets Promotion
IPM	Integrated Pest Management
IPTPL	Industree Producer Transform Private Limited
IQF	Individual Quick Freezing
IQF	Instant Quick Freezing
IRR	Internal Rate of Return
ISAM	Integrated Scheme for Agriculture Marketing
ISO	International Organization for Standardization
ISOPOM	Integrated Scheme of Oilseeds, Pulses, Oilpalm and Maize
ITC	Indian Tobacco Company
ITDP	Institute for Transportation and Development Policy
ITPO	India Trade Promotion Organisation
IVC	Integrated Value Chain
KDF	Knock-Down Furniture
KINFRA	Kerala Industrial Infrastructure Development Corporation
KKL	Kuapa Kokoo Limited
KKFU	Kuapa Kokoo Farmers Union
KVIC	Khadi and Village Industries Commission
KVK	Krishi Vigyan Kendra
KYC	Know Your Customer
MA	Modified Atmosphere
MACP	Maharashtra Agricultural Competitiveness Project
MARKNET	Agriculture Market Intelligence Network in Maharashtra
MCX	Multi Commodity exchange of India
MEP	Minimum Export Price
MES	Modular Employable Skills
MFI	Micro Financial Institution
MIDC	Maharashtra Industrial Development Corporation
MIIUS	Modified Industrial Infrastructure Upgradation Scheme
MIS	Market Intervention Scheme
MMA	Macro Management Mode of Agriculture
MMPO	Milk and Milk Product Order
MNAIS	Modified National Agriculture Insurance Scheme
MNC	Multinational National Companies
MNI	Market yard of National Importance
MOA	Memorandum of Association

MOF	Means of Finance
MoFPI	Ministry of Food Processing Industries
MoMSME	Ministry of Micro, Small and Medium Enterprises
MPCB	Maharashtra Pollution Control Board
MPDPIP	Madhya Pradesh District Poverty Initiatives Project
MPEDA	Marine Products Export Development Authority
MRI	Magnetic Resonance Imaging
MSAMB	Maharashtra State Agriculture Marketing Board
MSE	Micro and Small Enterprises
MSE-CDP	Micro and Small Enterprise– Cluster Development Programme
MSME	Micro, Small and Medium Enterprise
MSME-DI	Micro Small Medium Enterprise Development Institute
MSP	Minimum Support Prices
MSWC	Maharashtra State Warehousing Corporation
MSSIDC	Maharashtra State Small Industries Development Corporation
MT	Metric tonne
MUDRA	Micro Units Development and Refinance Agency Bank
NABARD	National Bank for Agricultural Reconstruction and Development
NAFED	National Agricultural Cooperative Marketing Federation of India Ltd
NAIP	National Agriculture Imagery Program
NAIS	National Agriculture Insurance Scheme
NAM	National Agriculture Market
NBFCs	Non- Banking Financial Company
NBS	Nutrient Based Subsidy
NCCD	National Centre for Cold-chain Development
NCDC	National Cooperative Development Corporation
NCDEX	National Commodity and Derivatives Exchange
NCR	National Capital Region
NDDB	National Dairy Development Board
NE	North East
NEDFC	North Eastern Development Finance Corporation
NEERI	National Environmental Engineering Research Institute
NEPC	National Environment Protection Council
NFL	Nabkisan Finance Limited
NFPCL	Narmadanchal Farmer Producer Company Limited.
NGOs	Non- Government Organization
NHB	National Horticulture Board
NHM	National Horticulture Mission
NIC	National Industry Classification

NMAET	National Mission on Agricultural Extension and Technology
NMFP	National Mission on Food Processing
NMSA	National Mission Sustainable Agriculture
NOC	No Objection Certificate
NPV	Net Present Value
NRCs	National Resurch Centres
NSIC	National Small Industries Corporation
NTI	National Technical Institute
OBC	Other Backward Castes
OC	Organochlorine
OP	Organophosphate
OTP	One-time Password
OTSP	Operational Training Systems Provider
PBT	Profit before Tax
PCB	Pollution Control Board
PCRA	Petroleum Conservation Research Association
PD	Project Director
PEB	Pre Engineering Building
PERT	Program Evaluation Review Technique
PET	Positron Emission Tomography
PGS	Participatory Guarantee System
PHM	Post- Harvest Management
PKVY	Paramparagati Krishi Vikas Yojana
PLC	Programme Logic Controller
PMA	Project Management Agencies
PMEGP	Prime Minister's Employment Generation Programme
PMFBY	Pradhan Mantri Fasal Bima Yojana
PMMY	Pradhan Mantri MUDRA Yojana
PMRY	Prime Minister's Rojgar Yojana
PMSKY	Prime Minister Krishi Sinchayee Yojana
PMU	Project Management Unit
PP	Poly Propylene
PPP	Public-private Partnership
PPPIAD	Public Private Partnership for Integrated Agricultural Development
PSUs	Public Sector Undertaking
PU	Poly Urethane
PVC	Poly Vinyl Chloride
QMS	Quality Management System
R&D	Research and Development

REGP	Rural Employment Generation Programme
RFID	Radio Frequency Identification Devices
RKVY	Rashtriya Krishi Vikas Yojana
RMB	Raw Material Bank
RO	Reverse Osmosis
ROC	Registrar of Companies
ROCE	Return on Capital Employed
ROE	Return on Equity
ROI	Return on Investment
RRBs	Regional Rural Banks
RSETI	Rural Self Employment Training Institutes
RTA	Ready to Assemble
SAUs	State Agriculture Universities
SC	Schedule Caste
SCP	Schedule Caste Plan
SEBI	Stock Exchange Board of India
SFAC	Small farmers Agri Business Consortium
SFURTI	Scheme for Regeneration of Traditional Industries
SHG's	Self Help Group
SHM	Soil Health Management
SI	Sum Insured
SIDBI	Small Industries Development Bank of India
SLM	Straight Line Method
SME's	Small and Medium Enterprises
SMS	Short Message Service
SPS	Sanitary and Phytosanitary Measures
SPV	Special Purpose Vehicle
Sq. mt	Square Meter
SRTT	Shri Ratan Tata Trust
SSPCL	Swaroop Shetkari Producer Company Limited
ST	Schedule Tribes
SWC	State Warehousing Corporation
T	Tonnes
TCOs	Technical Consultancy Organization
TCSs	Tata Consultancy Services
TPD	Tonnes per Day
TEA	Tirupur Exporters Association
TFO	Total Fund Outlay
TPH	Tonnes Per Hour

TQM	Total Quality Management
TSP	Tribal Sub-Plan
UA	Udyog Adhar
UNESCO	United Nation Educational Scientific and Cultural Organization
UPIS	Unified Package Insurance Scheme
USA	United States of America
USD	United State Dollar
USD	US Dollar
USFDA	United State Food and Drug Administration
USP	Unit Selling Price
VLRC	Virutti Livelihood Resource centre
VMC	Vertical Machining Centre
VSAPCL	Valanadu Sustainable Agriculture Producer Company Limited.
VUPCL	Veerachozan Uzhavan Producer Company Ltd
WBCIS	Weather based crop Insurance Scheme
WC	Warehousing corporation
WDV	Written Down Value
WSN	Wireless Sensor Network
WUA	Water user Association



Foreword

अशोक दलवाई, भा.प्र.से.

मुख्य कार्यकारी अधिकारी

भारत सरकार,

कृषि एवं किसान कल्याण मंत्रालय

कृषि, सहकारिता एवं किसान कल्याण विभाग

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As a foreword to this manual for Board of Directors (BoDs) of Farmer Producer Companies, it will be quite apt to provide a National perspective on the agriculture and the agri-business sector to farmers and their Producer Companies. India is today the 7th largest agricultural exporter in the world. But farmers remain in frequent distress. Significantly, small farmers now account for 83 percent of total land holdings and in context, Kerala tops the list of being the state with the highest number of small and marginal farmers while in Nagaland holdings are larger than the average size in the other states.

In this contextual setting, the Ministry of Agriculture and Farmers' Welfare, the Ministry of Food Processing Industries (MoFPI) as well as the Ministry of Micro, Small and Medium Enterprises (MoMSME) have been supporting the agriculture as well as agri-business sector through a range of policy instruments and schemes. The cold chain, agro-processing cluster, forward and backward linkage schemes of the MoFPI and Micro and Small Enterprise Cluster Development Programme of the MoMSME have also provided benefits to the agri-business sector.

The Ministry of Agriculture and Farmers' Welfare has been making several interventions to relieve and support farmers as well as strengthen the agri-value chains. These have reference to addressing price volatility in agricultural commodities, introducing the model APLM Act 2017 astep towards a single market, direct interaction between farmer buyer stakeholders and also

declaration of warehouses and cold storages as market sub-yards. The other initiatives include the promotion of the e-NAM to enhance transparency in trade operations and integration of markets. Further, rationalisation of the Contract Farming Act and Futures Trading is expected to facilitate direct market connectivity and hedging of risk by farmers. There is high price volatility in agricultural commodities and price support from the government is available through Minimum Support Prices (MSP) and also through the Market Intervention Scheme (MIS).

The model Agriculture Produce and Livestock Marketing (Promotion and Facilities) Act 2017 - (APLM) Act 2017 which has been introduced has several important features such as: the abolition of fragmentation of the market within a state or union territory concept and consideration of a state or UT as a single market; disintermediation of food supply chain by integration of farmers with processors, exporters, bulk retailers and consumers; creation of a conducive environment for setting up and operating private wholesale market yards, so as to enhance competition among different markets and market players; promotion of direct interface between farmers and processors, exporters, retailers and consumers so as to reduce the price spread and therefore benefitting both the producers and the consumers; and declaration of warehouse silos, cold storages and other structures as market sub-yard to provide better market access to the farmers.

Further, e-trading is to be promoted to increase transparency in trade, operations and integrating of markets. Provision has also been made for single point levy of market fee across the state and unified single trading licence. Promotion of a National market for agriculture produce has been encouraged through provisioning of interstate trading licence, grading, standardization and quality certification. Further, there has been rationalisation of market fee and commission charges as well as provision for Special Commodity Market Yards. The other initiatives had been introduced at providing a level playing field to the licensees of private market yard, private market sub-yard, electronic trading and direct marketing vis-à-vis the APMCs. Importantly, understanding the need for direct linkages between farmers and value chain leaders, contract farming concerns have been accorded priority. The conflict of interest arising from authorising APMCs to regulate the agreements has been addressed. Further, Indian farmers are burdened by price volatility and in such a situation; options can be a buttressing instrument. Forwards trading options can provide farmers with an appropriate tool to get a good price for their produce and manage prices and risk efficiently. Farmers' participation in futures is limited due to the entry barriers in the form of membership criteria, stringent KYC norms, margin requirements, etc. Nevertheless, with the emergence of FPCs, they are now able to hedge their price risk well in advance of the start of harvest seasons.

In relation to trade and exports of the country, cotton, cereals, fruits and vegetables, tea and coffee comprise of the major share. To the contrary, Palm oil, soybean oil and sunflower oil are also the major items being imported under the category of animal and vegetable fats. It is important to note that some commodities are imported to meet

the crises situations due to shortages in domestic supply. Further, the Agriculture and Processed Food Products Export Development Authority has initiated a cluster approach in contiguous geographical farmlands and enabling farmers to address the issues raised in cultivation such as quality planting material, integrated pest and nutrient management, pre-harvest issues like maturity indices and permissible residue levels, through agencies of the state governments. The concerns in post-harvest handling and export linkage are also being addressed. The trade related aspects in marketing include subsidised, tariff or non-tariff barriers and other trade policy instruments. Exports of agricultural commodities have been restricted through export prohibitions, licenses, quotas, marketing controls and Minimum Export Prices (MEPs). In the case of some essential commodities like onion MEP has been imposed often to control domestic prices. Approximately, 15 percent of the crop is lost between the farm gate and the customer because of infrastructure poor roads and improper storage facilities thus affecting the income of farmers. In this contest evolution of cold storage facilities needs to be coupled with other logistics support like pack-houses, refer vans and ripening chambers. This will help in avoiding huge post-harvest losses of perishable agricultural and horticultural produce.

The Land Revenue Act specifies the maximum land ceiling beyond which citizens cannot own agricultural land; tiller shall be the owner of the land; and a person with non-farm income beyond a certain threshold is barred from purchasing agricultural land. Sadly, apparently an average 5-10 percent of arable land remains fallow in the kharif season. The oral land lease comes with several disadvantages and land remains fallow. The lessee does not gets recognised as a farmer and remains deprived of access to the government schemes, and programs, relief support in case of natural calamity and institutional credit. In this context, the model Land Lease Act, 2016 offers an appropriate template for the states and UTs. This will also help in much needed productivity improvement in agriculture and will also, legalizing land leasing for all tenants', access insurance and bank credit against pledging of expected yield.

Relating to the domain of agriculture inputs, seeds circumscribe the limits of output. The public organisations involved in seed production include the National Seed Corporation, State Seed Corporations, Cooperative Institutes and State Departments of Agriculture. Major food crops like paddy and wheat alone are largely grown using improved or hybrid seeds in general- to increase productivity and farmer's income. Partnerships between the public research institutions and the private sector are desired in research. With regard to fertiliser use, the government has issued soil health cards, which provide present nutrient availabilities in the soil and recommended level of input to be used for a given field. This addresses fertilizer imbalance issue as the normative levels are derived at the field level than at the state level. More stringency with respect to quality control is being considered by the 'FCO Review Committee'. The key areas addressed are: Registration of all fertilizers manufacturer, importers and dealers; Laying down specification of all fertilizers chemical (general-NPK, water soluble, Liquid and customized), bio-fertilizers and organic fertilizers, packing and

labelling on fertilizers bags; Guidelines for appointment of enforcement agencies, sampling and analysis techniques of fertilizers samples and setting up of quality control laboratories. Apart from these, fertilizer subsidy is the second-biggest subsidy after food subsidy. The total outgo on fertilizer subsidy stands at Rs. 70,000 Crore in 2017-18.

Apropos the trade policy and exports, today, agriculture accounts for 14.2 percent of the country's Gross Domestic Product; employing almost 55 percent of the country's workforce. Importantly, India has nearly 12 percent of the world's arable land ranking as 2nd in farm output when compared worldwide. India has emerged as a major agricultural exporter, with exports of more than USD 39 billion. Globally, it is the largest producer of milk, cotton, banana and mango and is among the largest exporters of rice, bovine/buffalo meat, onion and cotton in the world. It has become a very important player on the global market, especially for rice, cotton, sugar and beef (buffalo). In addition to these products, India has also become a sizeable exporter of soybean meal, guar gum, corn and wheat, as well as a diverse range of other products. Close to 60 percent of India's agricultural export basket was rice (basmati and common), marine products, meat, cotton and spices. India is also the world's second largest producer of rice, wheat and other cereals. Horticulture has a 10 percent share in India's agri and processed food exports. Most importantly, some Indian exporters are focusing on organic products, which have greater demand overseas. Nevertheless, the share of agri exports as a percentage of total exports from India has been continuously on a decline from 13 percent in 2012 to 11.71 percent by the end of 2016. Moreover, for most of the agricultural items, India's share in world exports is miniscule except for groundnut wherein share is in double digits of 17 percent followed by tea with 8.7 percent and rice with 4.7 percent. This is attributed to the fact that there exists stiff competition. Brazil serves as a competitor to India in sugar, coffee, tobacco and mango. USA competes in groundnut, rice, tobacco, grape, apples, wheat, poultry meat and fish exports while China has recently emerged as a major competitor for groundnuts, apples and fish. Even smaller economies like Vietnam and Turkey are occupying much larger share in the global markets as compared to India. This situation further becomes grim considering the high tariff and import duty rates in developing country markets. The European Union, Japan and United States are using maenads varying degrees, such and for trade barriers and other protection tools. The United States has been the largest market for India's agricultural exports in recent years. However, 79 percent of India's agro exports went to developing country markets and Least Developed Countries. One of the primary reasons of losing our export share in major import markets is a very high landing CIF price in these markets as compared to other competing suppliers. the poor productivity is also one of the reason of high landing price in foreign markets. India's rice yields are one-third of China's and about half of those in Vietnam and Indonesia. One of the primary reasons of losing price competitiveness in International markets is that more than 50 percent of value is lost to intermediaries. There is also presence of high tariffs and

import duty rates levied in importing Developed Country markets. Nigeria, one of the world's largest rice importers had imposed trade restriction on rice, in line with its long term policy of attaining self-sufficiency. China also imposes an import duty of 40 percent, and deprives India access to a large cotton consuming market. Further, dairy products attract peak import duties of 511 percent in the EU, 93 percent in the US. Though there is a free trade agreement between India and Japan, most farm products have escaped any duty reduction commitments. Furthermore, weak global currencies especially that of China, have also affected exports of Indian mint products such as menthol and mint oil. Relative appreciation of the rupee against the dollar vis-à-vis Brazilian Real has eroded India's price competitiveness in soybean, sugar and buffalo meat exports. Rising non – tariff barriers (NTBs) are another area of concern. India's farm exports also have to face a series of non-tariff barriers in top consuming markets- for example, a ban on import of mangoes by EU that was lifted in 2015. Other examples of market denials are ban on rice imports by Iran. China does not buy non-basmati rice from India but sources the same from Pakistan as well as Cambodia, Myanmar, Vietnam and Thailand. Further, the proposed US legislation requires agriculture imports to be mandatorily inspected and audited by USFDA is increasing the cost of compliance.

An important technology innovation is the e-National Agriculture Market (eNAM). Agriculture marketing is administered by the States as per their agri-marketing regulations, under which, a State is divided into several market areas, each of which is administered by a separate Agricultural Produce Marketing Committee (APMC) which imposes its own marketing regulation (including fees). The fragmentation of markets, with multiple levels of mandi charges ends up escalating the prices for consumers without benefiting the farmer. e-NAM addresses these challenges by creating a unified market through online trading platform. APMCs are primary agricultural wholesale markets. The Government now proposes to upgrade local haats (which go by different names across the country) into aggregation platforms, to serve as retail agricultural markets and strengthen the country's market architecture.

Compliance issues is another area of concern. The producers and processing companies operating in integrated supply chains are supported by importers in the implementation of private standards and guidelines. They implement strict food safety and quality measurements in tandem with the co-operatives, and employ well-trained quality inspectors within the vertically integrated supply chains. Many of these companies including Carrefour, trade fresh produce under their own brand names and, therefore, are very much oriented traders. This is also prevalent in case of companies which have entered cultivation into contract farming for tomato cultivation in Punjab, Haryana and Rajasthan. In certain cases, the conformity assessment procedures associated with SPS standards were found difficult and costly to put into practice within supply chains in India. With the existing long and fragmented supply chain, establishing sophisticated traceability systems is difficult. Also, state's intervention towards establishing SPS/TBT dissemination is necessary in this regard. It has been

witnessed that there has been frequent changes in the SPS/TBT regulations in export markets. In the absence of access to the actual and timely information on the SPS requirements in foreign markets, Indian agro farmers, traders and exporters face significant delays and confusion. Considering the fact that the cost of establishing such traceability systems and information dissemination system is too high, Public Private Partnerships needs to be encouraged at the state levels. Such information dissemination may be done through already established agri marketing information system (AGMARKNET) which exists and aims to facilitate market intelligence services and market led extension to encourage demand driven quality production. Inadequate standardization of products reduces attractiveness for foreign retailers. The quality of packaging is also poor. Importing countries demand specific packaging for each produce and the use of biodegradable materials results in high cost of packaging. In this context, state governments should ensure strict food safety review mechanism which becomes a must to ensure the adherence of hygiene and sanitary requirements. The new Food Safety Management system needs to be followed with much vigour by the assistance and support of State Government. Notably, there is still no enforcement mechanism in India to compulsorily check the grading quality of export consignments. AGMARK standards are voluntary and not mandatory in nature.

With regard to marketing, agri-logistic and value system, agricultural marketing needs be oriented to marketing of large surpluses. The rethink is with the reasoning, to move marketing away from overseeing the flow of produce (from farm to consumer) towards a function that underlines the flow of market linked information (from fork to farm), to guide and mentor the market and logistics networks to efficiently handle surpluses that are generated. Agricultural marketing entities have earlier focused on informing market price and not much on providing market intelligence (forecasted demand and prices). With respect to market intelligence, there is need to move from giving price information to intelligence. In the current status, market information is mainly limited to price information, where the current day's transaction price at select centres is provided. However, since the price data is after sales (ex-post information, it may not remain the same in following time period). This aggravates price fluctuations. Though commodities remain in demand all through the year, there is a temporary glut at time of harvest. The farmers are subject to price volatility during the harvesting season - the produce is valued, either at the notified MSP or the buyers determine a price for that period. In many cases the buyers' determined price is observed to be less than the notified MSP rate.

The union government has placed a strong impetus on the agri-business sector and aims to double the income of farmers by 2022. Many schemes have been launched. The Pradhan Mantri Fasal Bima Yojana (PMFBY) the scheme provides financial support to farmers and covers their crop losses. The scheme covers rabi, kharif crops as well as annual horticultural and commercial crops. The PMFBY is a crop insurance policy and premium payable on the principle amount to the farmers. Under the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) allocation has been made for invest-

ment in irrigation, expanding cultivable area, improve efficiency of on-farm water to reduce wastage and enhance adoption of precision irrigation. Under the Paramparagat Krishi Vikas Yojana (PKVY) promotion of organic farming is encouraged and balanced use of chemical fertilizers to enhance the quality of farm produce.

The Soil Health Management scheme was devised to assist the State Government to set up new static Soil Testing Laboratories and Mini Soil Testing Labs. Today, the challenge is seeking development of simplified, sensor based and quick soil testing method to test the nutrients and micro-nutrients. The assaying of agricultural produce at the market level is of utmost importance to enhance the marketability of the produce and to enable farmers to realise price commensurate to the quality of their agricultural produce. Mandis handle huge volumes of arrival and smaller lots; hence it is essential to provide a quick quality assaying solution to promote online trading. For this, the challenge is seeking development of grading and assaying solution for e NAM which can be connected to the internet.

The success of implementation of the Pradhan Mantri Fasal Bima Yojana depends upon accurate yield estimates at village/farm level. However, crop yield estimation is a very complex activity, as yield is influenced by many factors such as crop genotype, soil, weather management practice and various biotic and abiotic stresses. In this regard, the challenge is also to develop a web based spatial decision support system which takes data from high resolution satellite based agro-meteorological parameters, sensor networks giving information, etc. to provide estimates of yield at farm level.

Creation of regional Agri-Kiosks by the respective departments is necessary to provide a kind of a one-stop shop for all agricultural needs providing services such as soil testing, seed selection, appropriate pesticides, herbicides, and fungicides. Agri-kiosks can also provide the latest agricultural equipments on rent which make them easily accessible for women farmers. The challenge is looking for solutions to improve the availability of agricultural inputs through a Custom Hiring Centre.

Further, insect, plant pathogen, and weed pests destroy more than 40 percent of all potential food production each year. This loss occurs despite the application of approximately 3 million tonnes of pesticide per year plus the use of a wide array of non-chemical controls, like crop rotation and biological controls. Due to lack of effective, affordable and eco-friendly technologies to control pests, farmers are left with no choice but to continue spraying harmful and toxic pesticides on crops. The challenge is looking for technology solutions to substitute the use of pesticides and insecticides to prevent pre-harvest losses. One of the biggest issues facing the agricultural sector in India is low yield: India's farm yield is 30-50 percent lower than that of developed nations. Apt technology interventions need to be made.

A comprehensive ICT strategy has also been developed not only to reach out to farmers in an easy and better way but also planning and monitoring of schemes. In order to meet the information needs of farmers, Ministry of Agriculture and Farmers' Welfare has developed different websites and web portals that allow farmers to access the information using Internet Information on Market Price, Soil Health Card, Crop Insurance, Government schemes etc.

The value addition in agriculture commodities helps to raise the price of commodity earns and enhances its value. Even basic value addition such as cleaning and grading of grains, sorting of fruits and vegetables and primary processing activity such as cutting, dicing, and packaging fruits and vegetables can also help in raising farmers returns. Such facilities have been extensively established under the World Bank supported Maharashtra Agriculture Competitive Project. The value addition is an important step if the vision of doubling farmers' income has to be realized. In commodities such as wheat, pulses, oilseeds the removal of husk, foreign material, polishing, and grading are also considered to be primary processing. In case of fruits and vegetables, primary processing includes washing, slicing, packaging etc.

The value of output from the livestock sector is 25.7 percent of the total output from the agriculture and allied sector. More than 10 percent (16 million approximately) populace of India depends on animal, poultry and fishery for their livelihood. India continues to be the largest producer of milk in the world. India is the third largest dairy producers in the world. In terms of fisheries, India is the 2nd largest producer of fish in the world. Large number of farmers are dependent on the livestock sector for their livelihood and employment opportunities. Provision of cold chain at district and block level is required so as to enable expansion of organised milk market to provide greater access to dairy farmers for their milk produced; Genetic upgradation of cattle, buffaloes and improvement in delivery mechanism of breeding inputs and services to farmers including promotion of clean milk production; Heifer rearing crops and fodder trees; Quality feed and food through promotion of good varieties of fodder crops and fodder trees; Animal health promotion is vital to dairy development. Special emphasis should be laid on enhancing reproductive efficiency and prevention of infertility, preventive veterinary medicine; adequate animal health cover services, etc. With improvement of breed, the production of milk also gradually improves. Hence, measures should be put in place for cross breeding of local cows with exotic breeds as well as promotion of indigenous cattle. These comprise some of the critical concerns and developments in a National perspective.

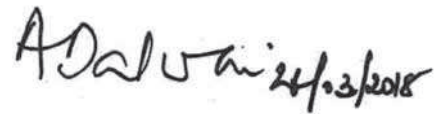
Farmer Producer Companies (FPCs) offer the farmers advantages that come from higher scales of operation at various stages of the agricultural value chain system. The progress has unfortunately been slow and needs to be accelerated by creating incentives and supporting facilitators' platforms such as an Agri -Business Promotion Facility (ABPF) has now been initiated by some state governments, the World Bank and SFAC that has demonstrated success and proved the advantages of collective operations. It would help if every farmer is encouraged to become a member of an FPC/FPO and integrate efficiently with a value chain platform. This would impact scales of economy to small farms & bring efficiency to operations.

This manual for Board of Directors(BoDs) of FPCs is replete with illustrations from a number of states in India and provides a good perspective on the evolution and strengthening of FPCs. It is a most relevant read for students of economics and management, as well as management professionals who seek to learn from these suc-

cessful illustrations and best practices. I would also like to place on record my sincere appreciation to the authors V. Padmanand, Sushil Khodwekar and Kunal Sood representing Agri Business Promotion Facility – Maharashtra Agriculture Competitiveness Project and Grant Thornton India LLP, for attempting to fill in the practical knowledge gaps in a manner worthy of appreciation. I very strongly recommend this book to the policy makers, field-level service providers and related institutions and farmer networks in India.

I must add that it is a very well written Manual and is a contribution to the need for knowledge and reday recknor on the subject. It will serve the needs of all concerned with and interested in mobilizing the farmers and their produce for imparting efficiency and effectiveness to agriculture sectors operations at all its stages, when all concerned with farmers recognize the critical role of mobilizing farmers and their produce.

New Delhi
March, 2018

A handwritten signature in black ink that reads "A Dalwai 24.03/2018".

Dr Ashok Dalwai (IAS)
CEO, NRAA and Chairman,
“Committee of Doubling
Farmers’ income by 2022”



Preface

Agriculture in India today has a net sown area of 141 million hectares with 7 percent being accounted for by the horticulture sub-sector. Livestock population is more than 512 million and India is the 7th largest agricultural exporter in the world. As per the National Sample Survey and the Ministry of Agriculture and Farmers Welfare, the number of agricultural labourers stood at 78.2 million in 2011-12. By 2010-11, the average farm size stood at 1.15 hectare. Small and Marginal farmers account for about 83 percent of holdings. In this circumstance, the agro and food processing sector may be considered in terms of the sub-sectors. Maharashtra has the highest production of fruits in India. It is ranked first in grapes, pomegranate, banana, tomato and onion production and second in papaya production. The State ranks 9th in vegetable production with 5.6 percent of India's total vegetable production. The State also houses more than 6500 MSMEs and 300 large scale units.

In this regard, the Agri-Business Promotion Facility services under the Maharashtra Agricultural Competitiveness Project (MACP) are provided by the Grant-Thornton India LLP. The interventions under the MACP have led to the evolution of 100s of FPCs. The FPCs are managed by a Board of Directors and their constant capacity-building is of utmost importance. It is in this regard that this publication may be visualised.

Section I of the volume presents an introduction to Farmer Producer Companies (FPCs) and presents success stories as well as issues related to policy advocacy.

The first chapter in this section considers the need for agglomeration of farmers into Farmer Producer Organisations (FPOs) and particularly Farmer Producer Companies. It also considers the experiences in FPC promotion. In a country where 83 percent of producers are small and marginal producers or farmers, there is an apparent need for aggregation of producers and their produce. Within the category of FPOs, FPCs have an advantage over co-operatives in the light of their democratic and producer-member based operation and management. In India, FPCs were originally promoted and supported by a state government (Madhya Pradesh) under a World Bank (WB) poverty reduction project since 2005, and thereafter (since 2011) extensively under similar projects in states like Maharashtra. Such initiatives are also being implemented in the states like Tamil Nadu, Rajasthan and Himachal Pradesh. NGOs, the Small Farmers Agribusiness Consortium (SFAC), Department of Agriculture of State Governments (some supported with World Bank assistance) and the NABARD are promoting FPOs in rural areas in the form of producer companies with financial support of the Government of India. In a producer company, unlike in a private limited company each member has only one vote irrespective of the number of shares held. Shares can be transferred only to primary producers. Presently, there are over 2000 FPCs operating in India as SFAC alone has evolved over 700 FPCs and the WB-MACP initiative works with over 440 FPCs. Including other legal forms, several thousand FPOs are arguably in operation in India.

The second chapter considers FPC principles and characteristics as well as the development approaches. The basic principles behind a FPC is voluntary and open membership, democratic farmer member control, autonomy, co-operation amongst farmers and concern for the community. The World Bank had initiated the FPO (FPC) development approach through a coordinating platform namely an Agri-Business Promotion Facility (ABPF). The FPC development approach in this context includes cluster identification, of diagnostic study and feasibility study for the formation of FPCs, resources mobilisation and business operations. An FPC may offer a range of services to members. These include:

- Input Supply and Custom hiring of equipment
- Operation of Farmer Common Service Centre (FCSC) for processing, packaging, storage etc.
- Insurance facility for crops
- Seed production
- Joint marketing to processors/retailers
- MSP facilitation
- Risk Hedging through NCDEX
- Working Capital realisation for procurement from farmers for facilitating storage or processing on trading model.
- Capacity building services
- Auction services within FCSC premises.
- Policy advocacy on behalf of members.

Apparently, these services may significantly contribute towards considerably increasing net value accruals to member-farmers.

The Third Chapter presents several case illustrations on successfully operating FPCs under the MACP in Maharashtra, NGO Promoted FPCs across the country and DPIP promoted FPCs in Madhya Pradesh.

The fourth chapter considers the important elements of agri-marketing policy for FPCs. Today, the framework under which markets for agricultural produce function in Maharashtra and the factors that influence farmer or producer prices and value accruals have also changed. It is necessary to develop an efficient agricultural marketing system both in terms of infrastructure facilities (hardware) and on-going practices (software).

Section II considers soft skills necessary for launching and managing a growing enterprise.

The first chapter here provides an introduction. Entrepreneurial and management skills may be referred to as hard management skills and soft (entrepreneurial or intrapreneurial) skills respectively. A Director needs to act as an “intrapreneur” or an “entrepreneurial-manager” within an FPC. Hard skills have reference to techno-managerial skills. Soft skills have more to do with the personality and internal behavioural traits and characteristics of an intrapreneurial manager or Director. An “intrapreneur” much like an entrepreneur is a planned risk taker who effectively organizes different factors of production.

The second chapter considers interpersonal communication and persuasion and use of influence strategies. The second chapter seeks to provide an understanding of the nature, types and importance of interpersonal communication. Communication need be effective

and appropriate. Various persuasion and influence strategies need also be employed by potential intrapreneur for success in the business.

Chapter three covers creativity and problem solving skill sets.

The fourth chapter introduces participants to negotiating skills and provides guidelines for successful negotiation. The chapter also introduces the concept of networking and the approach to towards building a productive network. Negotiation skills may be improved by: Cultivating empathy; building trust.

Chapter five introduces the concept and need of delegation and provides guidelines for effective delegation. Delegation consists only of entrusting the task of execution. The responsibility for the performance of the task remains with the person who has delegated.

Chapter six covers leadership styles. Leadership can be defined as the process of influencing and supporting others to work enthusiastically toward achieving targets.

Chapter seven considers efficiency orientation and systematic planning as a trait.

Section III considers hard skills or basic FPC related management inputs.

Here, chapter one considers Business Opportunity Identification inputs. It considers various methods of conducting an assessment survey of a business idea in a specific location. A comprehensive comparison of the available opportunities should be done to assess whether one is technology wise comfortable, profitability of business and risk involved in the project. There are various errors one can commit during opportunity selection like copy-cat syndrome, fallacy of numbers, inaccurate information etc.

Chapter two presents an introduction to a business plan. A business plan helps to define objectives, set targets and design a frame-work for benchmarking and monitoring implementation.

Chapter three profiles various actors and undertakes analysis of industry structure in target markets. A scrutiny of various actors in the sub-sector will help in conducting a structural analysis of the industry and also position an enterprise in the environment. The same can be done by evaluating the following instruments: Strength of customers and consumers; Strength of inputs suppliers; Strength of barriers to entry of new enterprises; Competition.

The chapter four presents the scope for competitive advantage and strategic positioning of an enterprise. An enterprise needs to secure a sustainable competitive advantage in terms of cost, advantage, differentiation or niche market.

The fifth chapter considers the important concept related to market and product mix decisions on the structuring of a market plan in a venture.

For pricing decisions, marginal cost based pricing method is an option. Also, the ideal product and market mix of an enterprise may be identified by means of contribution analysis. Two aspects critical in a market plan are channel development and selling incentives.

Chapter six considers networking with large processors and marketers in the value chain.

Chapter seven considers compliance and traceability for market linkages.

The chapter eight highlights the importance of a tracking and tracing system. Tracing is a backward process where origin is identified, whereas tracking is a forward process where end users and trading partners are identified. Traceability is the ability to verify the location or application of an item by means of documented recorded identification. It is the key to increase buyer's confidence and encourage transparent relationships with small land holders.

The chapter eight emphasises on imparting the skill for technical analysis. It is important to learn about critical technical issues in project and product selection technology assessment, production programme and plant capacity. It is important to estimate manpower requirement, plant layout and cost of machinery.

The chapter nine helps understand the relationship between cost, output and profit in an FPC enterprise and the importance of break-even point (BEP) analysis. A change in sales mix will not affect an FPC's break-even point and profit if each product has equal C/O ratio. However, a change in product-mix will change the break-even point and profit when products have unequal C/O or contribution over output or sales ratio.

Chapter ten presents the mode of preparing the financial of a business plan. This is in the context of a new and expanding FPC business.

Chapter eleven considers a feasibility analysis of projects and investment appraisal modes that gives due regard to the time value of cash inflows and outflows and also the speed of returns or inflows.

Chapter twelve presents case illustrations on examples of successful units into secondary processing.

Chapter thirteen considers fundamental concepts of bookkeeping. Financial Accounting is the field of accounting concerned with the summary, analysis and reporting of financial transactions pertaining to a business. Bookkeeping is the recording of financial transactions, and is part of the process accounting in the business. The various books to be maintained for accounting purpose are considered: Journal Book, Subsidiary Book, Sales Book, Ledger, Cash Book, Bank Book, and Stock Register.

Chapter fourteen considers various practical tools by which one may manage a small enterprise better. Economic order quantity (EOQ) is a simple cash cum-cost sheet, and is a tool that allows to forecast how much cash is earned and how much is spent on every operating cycle so as to enable the company in taking an informed decision on ways to manage cash.

Chapter fifteen helps understand Total Quality Management (TQM). Which gives emphasises on continuous improvement. Acceptable Quality Level (AQL) is a statistical measurement of the maximum number of defective goods considered acceptable in a particular sample size. Bench marking is measurement of the quality of an organisation, policies, products, programs, strategies, etc. and their comparison with standard measurements or similar measurements of its peers. The ISO 9000 family of quality management systems is designed to help organisations ensure that they are meeting needs of customers and other stakeholders while meeting statutory and regulatory requirements related to products or service.

Chapter 16 covers project activity planning and implementation. Project management involves co-ordination of various activities that are interrelated and project planning and scheduling requires technical considerations. Project scheduling establishes the time and sequence of the various phases of the project. A Gantt chart provides a graphical illustration of a schedule that helps to plan, coordinate, and track tasks in a project.

Section IV considers FPC management and regulatory inputs with case illustrations.

Chapter one considers case studies in terms of typical activity profile of some FPCs in Maharashtra. An FPC earns from a range of activities and services. An FPC can earn revenue by way of input facilitation by supply of seeds, fertilizers, pesticides. FPCs are also earning income by way of providing cleaning and grading services for grains and cereals and fruits and vegetables. FPCs are also earning revenue by facilitating sale of cereals and grains at MSP, by levying auction fees (from traders) for facilitating auctioning services, FPCs also earn and hedge their risk through NCDEX futures trading.

Chapter two considers presentation of healthy financial statements for institutional credit support. This chapter also presents a comparative analysis between two FPCs.

Chapter three considers regulatory compliances in terms of Udyog Aadhar, Direct Marketing License and FSSAI.

Chapter four considers realisation of working capital for FPCs with case illustrations for procurement and trading in maize and other commodities on the NCDEX platform and for direct marketing.

The subsequent chapter five presents the NCDEX operation for hedging against commodity price risk.

This chapter six presents the importance of technology for helping farmers and FPCs to increase their income. Mobile phones are utilised in agricultural advisory service for agronomic practices, crop protection advisories, weather forecasts and market prices.

Chapter seven presents the management structure of an FPC, member rights, powers and duties. Chapter eight presents statutory compliances for FPCs. FPCs have to ensure electronic filing to Registrar of Companies (ROC), maintain statutory registers etc.

This manual and handbook is expected to cater to the essential information and skill needs of Board of Directors of FPCs, support system functionaries and other stakeholders involved in promoting and developing FPCs across the country.

Section V considers schemes and programmes of Government and State.

Chapter one presents schemes of the Ministry of Agriculture and Farmers Welfare.

Chapter Two considers schemes of the Ministry of Food Processing Industries.

Chapter three considers other schemes of the Government of India.

Chapter four considers Agriculture and Food processing related schemes of the Government of India.



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V. Padmanand is a reputed International Expert on Private Sector and Micro, Small and Medium Enterprise Development as well as on Agri-business with expertise in the areas of conduct of cluster and value-chain studies, evolution and implementation of action plans including Public-private Partnership based projects across all sectors, entrepreneurship development, evolving Farmer Producer Companies evolving industrial policy and schemes and implementation of development programmes as International Expert and Team Leader for: Governments; United Nations (UN) and other organisations such as the UNIDO (Vienna), the UNDP, International Fund for Agricultural Development (Rome), International Labour organisation (Geneva), World Bank, Asian Development Bank (Manila), German Technical Co-operation, Commonwealth Secretariat (U.K.) and Department for International Development (U.K.); and MNC consulting firms and developmental institutions. He has been invited to serve as Member of the Planning Commission, Government of India (in several working groups) and has also served on the Advisory Board and Committees of entrepreneurship development institutions. Prof. Padmanand has published 9 books, many of which have been formally endorsed by global entrepreneurship, management and cluster value-chain development “Gurus” and have been deployed for training Cluster Value-chain Development Agents and entrepreneurship facilitators by him in their thousands. He has extensively provided field- level Technical Assistance for industrial development, and also been in charge of projects related to development of several economies and hundreds of locations and industrial districts involving over 15 countries. He is presently serving as Executive Director, Grant Thornton India LLP. The author has been awarded M. Phil’s from the University of Cambridge (U.K.) and the University of Madras, India and has secured several National and overseas awards for academic merit and for outstanding Academic Contribution over teaching in Business Schools. The author has formally played the role of advisor and expert and team leader guiding soft interventions in clusters and in agri value chains and business plan preparation and basic implementation of most of the interventions presented in this book. He has served as Engagement Leader in the Agr-Business Promotion Facility (ABPF) operations under the Maharashtra Agricultural Competitiveness Project and the Rajasthan Agricultural Competitiveness Project, as well as in some related interventions in Punjab and Tamil Nadu.



Shri Sushil Khodwekar is an IAS officer of 2011 batch from Maharashtra cadre. A post graduate in Analytical Chemistry from MUMBAI University in 2003 and M.A in Public Policy from IGNOU in 2013, he has served in various capacities in Maharashtra districts of Thane, Palghar, Nanded and Parbhani as an executive in tribal, urban administration and rural development. Presently, he is serving as the Project Director with the Maharashtra Agricultural Competitiveness Project (MACP) (Department of Agriculture Marketing and Co-operation) in Pune, Maharashtra which has facilitated a sea change with respect to farmer's livelihood. This is a project funded by World Bank since 2010. Amongst other initiatives, this project has facilitated the development of 400 Farmer Producer Companies (FPCs) involving about 2 lakh farmers and about 1000 Agri business start – ups. Further, several innovative instruments and platforms, such as the ABPF, have been developed under the project which are pioneering even perhaps in global terms. The thought process behind the book is to give a structured vertebra to the farming community to come together, co-operate, understand the agriculture sector marketing business model, and shift towards a market oriented mechanism by which producers's share as a part of total net accruals moves up in the next few years. To further facilitate this activity, a cell exists under MACP by the name, Centre for Indian Agricultural Marketing Intelligence (CIAMI) which provides price forecast on a revolving basis for various commodities in pulses (tur, gram, etc.), oil seeds (Soya), cereals (maize), vegetables (tomato, onion, etc.) to help farmers achieve better realisation on national basis. Transparent methods by which farmers can come together as corporate shareholders functioning under a single umbrella as a producer; marketer of quality produce for global markets is explored in a major way. Business linkages and various central, state governments' schemes are also explored in detail. Initiatives in the form of Agri-Business Promotion Facility which can be adapted by other states are inputted. This work will also be translated into various regional languages; perhaps as part of the agriculture university curriculum so as to enable a new generation of 'agri intrapreneurs' may be developed over a period of time at university levels.



Kunal Sood is a partner with Grant Thornton India LLP. Grant Thornton is a leading professional services firm providing assurance, tax and advisory services. Kunal leads the Government advisory practice of the firm, which works with Central Ministries, State Governments and multilateral agencies in promoting development. The current engagements led by Kunal are with NITI Aayog, World Bank, ADB, about 6 central ministries and more than a dozen state Governments. Over the past 5 years, Kunal has focussed on promoting agri-business and food processing, covering the farm to fork value chain. On one hand, he is leading several engagements with the Ministry of Food Processing Industries, aimed at promoting investments in infrastructure for food processing industries including Mega Food Parks, cold chains and backward & forward linkages. On the other hand, he is assisting Ministry of Agriculture and several state governments in implementing their programme targeted at aggregating farmers and establishing their industry linkages. Overall, Kunal has over 17 years of experience in development advisory. He has assisted Governments, Multilateral Organisations, Industry bodies and private sector in designing and implementing programmes for promotion of industrial infrastructure, MSMEs, skills, agribusiness, livelihoods and investments. The assignments comprise programme management, capacity building, monitoring & evaluation, policy & strategy formulation. During his professional career he has served multilateral organisations like UNIDO, National Resource Institutions like EDII and various advisory organisations. His sector experience includes food processing, leather, textiles, plastics, engineering, unorganised sector, etc.



From the Editorial Team's Desk

While vigorously surfing through the contents of this manual, a few thoughts came to mind. With the present state of agriculture architecture in the country, can this manual guide farmers, educate them, bring benefits through co-opted work and improve their status as tiller of land? The human "soft skills" element in section 2 deals with skills required to nurture a small FPC into a successful business venture. How do farmers integrate themselves, bring about mutual benefits of association for themselves by which everyone prospers? Traits of emotional intelligence are touched upon for leaders of FPOs in the form of soft skills. How to motivate themselves during the best of times and adverse situations by taking recourse to long term financial solutions rather than on seasonal basis and on vagaries of the monsoon? Start saving for the rainy day in the form of a corpus!

Can we switch to scientific cultivation, processing and management from old methods? Can we induct Gen Y into agriculture as a way of life and career? Can better financial planning in the form of working capital management lead to financial prudence rather than falling into a century old debt-trap? Change management is the key. Better practices, in the form of modern methods of business cycle based model, need to be adopted. How do we guide them?

The real challenge would be, when the text gets into adoption mode in the form of vernacular script. This is the point where knowledge gets transformed into application mode at grass root levels (bottom of the pyramid approach).

The training manual serves all the purposes of moulding FPCs into a scalable venture. This can help in revisiting and achieve the objective of doubling of farmers' income also. Thanks to team GT and MACP; sharing all experiences of the past is going to give a thrust to our movement for improving livelihood of our farmers. FPCs learning accounts, financial and business management will help leverage business finance, and bring transparency in business. Good agricultural practices combined with efficient farming activities portrayed to financial institutions can yield a portfolio based fund for scaling up all activities in all functional areas. Successful case studies from across the nation indicate this.

From the Editorial Team's Desk

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SECTION - I

INTRODUCTION TO FPC'S SUCCESS STORIES AND COMPANY MANAGEMENT





CHAPTER 1

WHY FPOs; WHY FPCS

PARTICULARLY ? STATUS AND EXPERIENCE

Highlights

This chapter considers some critical aspects related to FPCs. In a country where 85% of Producers are holding a mere 1.33-hectare farm, there is an apparent need for aggregation of producers and their produce. Within the category of FPOs, FPCs have an advantage over Co-operatives.

In India, FPCs were originally promoted and supported by the State Government (Madhya Pradesh) under the World Bank (WB) poverty reduction project since 2005, and thereafter (since 2011) extensively under similar projects in states like Maharashtra.

Such initiatives are also taking place in states like Tamil Nadu, Rajasthan and Himachal Pradesh.

NGOs, the Small Farmers Agribusiness Consortium (SFAC), Department of Agriculture of State Governments (some supported with World Bank assistance) and the NABARD are promoting (FPOs) in rural areas in the form of producer companies with financial support of the Government of India.

A producer company needs a minimum of 5 Directors, 10 primary producer members or 2 producer institution members. Each member has only one vote irrespective of the number of shares held. Shares can be transferred only to primary producers on price consideration.

The exact number of FPOs and FPCs in India is anybody's guess. It is believed that there were over 156 FPCs in India as on mid-2011, which grew to 879 by 2015. Presently, there are over 2000 FPCs operating in India as SFAC alone has evolved over 700 FPCs and the WB-MACP initiative works with over 440 FPCs.

Including other legal forms, several thousand FPOs are arguably in operation in India.

1.1. Woes of the rural populace

The rural populace around the globe find integrated access to markets directly as one of the major impediments in raising their livelihood incomes. Poor market connectivity and low bargaining power affect the rural producer.⁽ⁱ⁾

The circumstance is accentuated in India as more than that 83 percent producers are small and marginal farmers. The circumstance is rather similar in Maharashtra, due to this fragmentation, farmers do not have the wherewithal to adopt latest technology nor use high yielding varieties and inputs like seeds and fertilizers.⁽ⁱⁱ⁾ Nor, do they have the ability to realize scale economies in procurement of inputs or supply of output. Therefore, they need to be integrated into Farmer producer Organisations.

1.1.1. Why FPOs ?

Basically, an FPO is an association, a society, a cooperative, a union, a federation or even a firm that has been established to promote the interests of farmers. The main goal of an FPO is to provide services that support producers or farmers in their cultivation and post-harvest activities.⁽ⁱⁱⁱ⁾ Twinning small and marginal producers to markets is an important thrust for related policy. There is a need for aggregation of produce and producers in order to benefit from economies of scale in production and for farm mechanisation and optimising sourcing of farm inputs. Aggregation is also needed for sharing services such as post-harvest, storage, processing, packaging and transportation, and to offer produce to the market directly in required volumes.

Such FPOs also enable producers to progress into value adding and operation optimising activities such as input supply, credit, custom hiring, seed production, primary and secondary processing and marketing. In addition, they lower transaction costs for processing stakeholders.

Farmer Producers' Organisations or collectives are being increasingly argued to be the means to enable small and marginal farmers to participate successfully in regional, national and global value chains.^(iv) Producers' organizations also help in evolving social capital and de-centralised governance framework amongst the rural populace.

1.1.2. Why Producer Companies than Co-operatives ?

Increasingly, there are arguments in favour of Producer Companies than Co-operatives in general as the later have suffered from various problems globally and resulted in failure, albeit with exceptions. Producer companies came into existence in this scenario for more commercial sustainable operations of FPOs with the amendment of Section 581 of the Companies Act, 1956, in 2003. A producer company operates under the regulatory framework that applies to companies and can be registered under the provisions of part IX-A, chapter one of the Companies Act, 1956. Its membership can be of 10 or more individual producers, or two or more producer institutions or a combination of both. It retains the one member-one vote principle irrespective of shares or patronage, except during the first year when it can be based on shares. The FPC model focuses on self-help groups as the basic unit for aggregation with no limit on the size of membership and size of operational area.

The co-operative form of organisation has been viewed as a means to achieving reduction in poverty and increase in wellbeing of rural folk in the presence of other structural constraints like small holdings.^(v) Today, co-operatives across the developing world have been more of a failure than success and are alleged to have led to exclusion of the really poor, elite capture of such bodies, promoting differentiation instead of equity in rural communities.

In India, the only exceptions to the failure have been sugar and milk co-operatives in some states, especially in Maharashtra and Gujarat. But, even in Gujarat, there are as many cases of failure as are of success of co-operation which include tobacco, cotton, vegetables, grains and canal irrigation co-operatives and tube well companies which have redressed the irrigation problem. In India, initiatives towards joint-farming have been on since the 1950s.^(vi) These initiatives include co-operatives and groups in states like Gujarat and Andhra Pradesh where high cost ground water based tube well irrigation have been facilitated through groups who have progressed into farming co-operatives.^(vii)

In India, the alternative ways of registering FPOs include Societies and Trusts, Co-operatives, Mutually Aided Co-operative Societies, Private Limited Companies, Public Limited Companies and FPCs. But, until recently, in India and many other developing countries, traditional cooperatives were mostly organised under the co-operative structure, like State Cooperative Societies Acts in India. However, due to political interference, corruption and similar issues, the cooperative movement failed. Also, many lack adequate member involvement and also lack in financial and managerial resources.

Basically, FPCs break the producer organisation free of the inefficient and corruption-ridden image of cooperatives. This allows registered and non-registered groups, such as self-help groups or user groups to become equity holders in an FPC. This enabling provision is a distinct improvement over the existing legislation on cooperatives, which allows only individual producers to be members, the Act permits only certain categories of persons to participate in the ownership of FPCs, i.e., the members necessarily have to be “primary producers” – persons engaged in an activity connected with or related to primary produce. Small and marginal producers can avail professional management inputs while retaining management control. ^(viii)

Table 1: Comparison of a Co-operative and an FPC in India

Feature	Co-operative	FPC
Registration	Co-op Societies Act	Companies Act
Membership	Open to any individual or cooperative	Only to producer members and their agencies
Shares	Not Tradable	Tradable within membership only
Relation with other entities	Only transactions	Can form joint ventures and alliances
Professionals in BoD	Two technical Directors may be on board	Can be Co-opted
Member stakes	No linkage with member of shares held	Articles of association can provide for linking shares and delivery rights
Voting rights	One person one vote, but RoC and government have veto power	Only one member one vote and non-producer can not vote
Reserves	Can be created if Made profit	Mandatory to create reserves
Profit sharing	Limited dividend on capital	Based on patronage but reserves must; and limits on dividend
Role of government	Extensive	Minimal
Disclosure requirements	Annual report to regulator	Very strict as per the Companies Act
Borrowing power	Restricted	Many options
Dispute settlement	Through co-op system	Through arbitration

Table 2:A Comparison of a Private Limited Company with a FPC

Company	Private limited Company	FPC
Minimum member of Directors required	2	5
Membership Eligibility	Any one	Only Primary producer or producer institutions
Number of Members	Minimum 2; Maximum 50	Minimum 10 primary producer members or two producer institutional members
Voting rights	Based on number of equity shares held	Only one vote irrespective of number of shares held
Share Transferability	Can be transferred to any other person	Can be transferred only to primary producer on price consideration
Share Allocation	Open to investors and FIs	Not open to outsiders
Conversion Clause	Conversion of Private Limited to Limited is possible, but conversion to FPC is not possible	No conversion is possible, but registered multi state Cooperatives/cooperatives can be converted to FPCs and vice versa.
Internal audit	Conditional subject to financial Limit	Compulsory

Organisations and agencies such as NGOs, the Small Farmers Agribusiness Consortium (SFAC), Department of Agriculture of State Governments (some supported with World Bank assistance) and the National Bank for Agriculture and Rural Development (NABARD) are promoting farmer producer organisations (FPOs) in rural areas in the form of producer companies with financial support of the Government of India. The National Mission on Agricultural Extension and Technology (NMAET) is also supporting FPOs through: Encouraging the aggregation of farmers into interest groups to form FPOs; Providing requisite technical support and knowledge to farm schools/FPOs and farmers. ^(ix)

1.2. Status and Experience of FPCs in India

The exact number of FPOs and FPCs in India is anybody's guess. One study indicates that there were over 156 FPCs in India as on mid 2011 which grew to 879 by 2015. ^(x) Presently, there could be over 2000 FPCs operating in India as SFAC alone has evolved over 814 FPCs ^(xi) and the WB-MACP initiative works with over 440 FPCs. Including other legal forms, several thousand FPOs are arguably in operation in India.

1.2.1. Early origins

In India, FPCs ^(xii) were initially promoted and supported by a state government (Madhya Pradesh) under a World Bank (WB) poverty reduction project since 2005 and thereafter (since 2011) under similar projects in states like Maharashtra. Such initiatives are also on in states like Rajasthan and Himachal Pradesh. In the case of FPCs in MP, the state government was also the promoting body and provided a one-time grant of Rs.25 Lakh to each FPC as fixed deposit revolving fund for obtaining bank loan against it, and also another annual grant of maximum Rs.7 Lakh per year for 5 years for administrative and other expenses. Further, interest subsidy up to a limit of Rs.2 Lakh was provided on any term loan taken by an FPC and a grant of up to 75% of the cost up to a maximum of Rs. 2 Lakh was given for any certification expenses like Food Products Order (FPO) and Global Good Agricultural Practices (Global G.A.P). ^(xiii) The membership/shareholding of FPCs in India ranges from individual producers to informal self-help groups, only to institutional members. The number of members range from around 300-450 in Maharashtra, 25-6000 in Gujarat, and 350-1200 in Rajasthan and 10-6500 in MP. Though authorized capital ranged from Rs. 2-25 Lakh across FPCs, the paid up capital remained within Rs. 1-5 Lakh with few touching Rs. 10 Lakh and fewer having authorised capital of Rs. 50 Lakh or more.

There are also NGOs like the Association of Farmer Companies (AFC) who have chosen the private limited company route to organise producers under the Companies Act.

There are other formats. In Fab India's community companies in which the promoter and other venture funds co-invest with the artisans or farmers to create producer institutions. These are some cases of joint stake companies. ^(xiv)





CHAPTER 2

FPC PRINCIPLES AND DEVELOPMENT APPROACH PHASES

Highlights

This chapter considers FPC principles and characteristics as well as development approaches.

FPCs are basically based on the values of self-help, self-responsibility, democracy, equality, equity and solidarity. The basic principles behind a voluntary and open membership, democratic farmer member control, autonomy, co-operation amongst farmers and concern for the community.

Its important characteristics include- treatment on par with any private limited company, liability limited to shares, members' equity may only be transferred and not publicly traded.

The World Bank had initiated the FPO (FPC) development approach through a coordinating platform namely an Agri Business Promotion Facility (ABPF). The FPC development approach in this context includes cluster identification, conduct of diagnostic study and feasibility study for formation of FPCs, resources mobilisation and business operations.

An FPC may offer a range of services to members:

- Input Supply and Custom hiring of equipment
- Operation of Farmer Common Service Centre (FCSC) for processing, packaging, storage etc.
- Insurance facility for crops
- Seed production
- Joint Marketing to processors/retailers
- MSP facilitation
- Risk Hedging through NCDEX
- Working Capital realisation for procurement from farmer's for/facilitating storage or processing on trading model.
- Auction services within FCSC premises.

Apparently these services may significantly contribute towards considerably increasing the net value accruals to farmers.

2.1. FPC Principles and characteristics

FPCs are based on the values of self-help, self-responsibility, democracy, equality, equity and solidarity. FPC members must believe in the ethical values of honesty, social responsibility and caring for others.

Principle 1: Voluntary and Open Membership

FPCs are voluntary organizations, open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination.

Principle 2: Democratic Management by Farmer Members

FPCs are democratic organizations controlled by the farmer-members who actively participate in setting the policies and making decisions having equal voting rights.

Principle 3: Farmer-Member Participation and Co-operation

Farmer-members may contribute equally, and anyway democratically control the capital of their FPC. FPCs serve their members effectively and governance by contributing towards development of social capital and local governance capabilities.

Principle 4: Autonomy and Independence

FPCs are autonomous, self-help organizations controlled by their farmer-members. If they enter into agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure their FPC's autonomy.

Principle 5: Education, Training and Information (on market, technology etc.)

FPCs operatives provide education and training to the farmer-members, elected representatives, managers, and employees so that they can contribute effectively to the development of the FPOs.

Principle 6: Concern for the Community

FPCs work for the sustainable development of the communities through policies approved by their members.

2.1.1. Characteristics of Producer Company

The important characteristics of a producer company may be viewed in terms of:

- The registered producer company should be treated as a private limited company with the significant difference that only two persons cannot get it registered; liability is limited to share
- Minimum paid-up authorized capital is of Rs.10,000
- The maximum number of members can exceed 50 Nos.
- It shall never become a public (or deemed public) limited company.
- Members' equity cannot be publicly traded but can only be transferred.

2.2. FPC Development Approach

The World Bank had initiated the FPC development approach through a coordinating platform namely an Agri-Business Promotion Facility (ABPF). The FPC development approach in this context may be viewed as depicted below ^(xv):

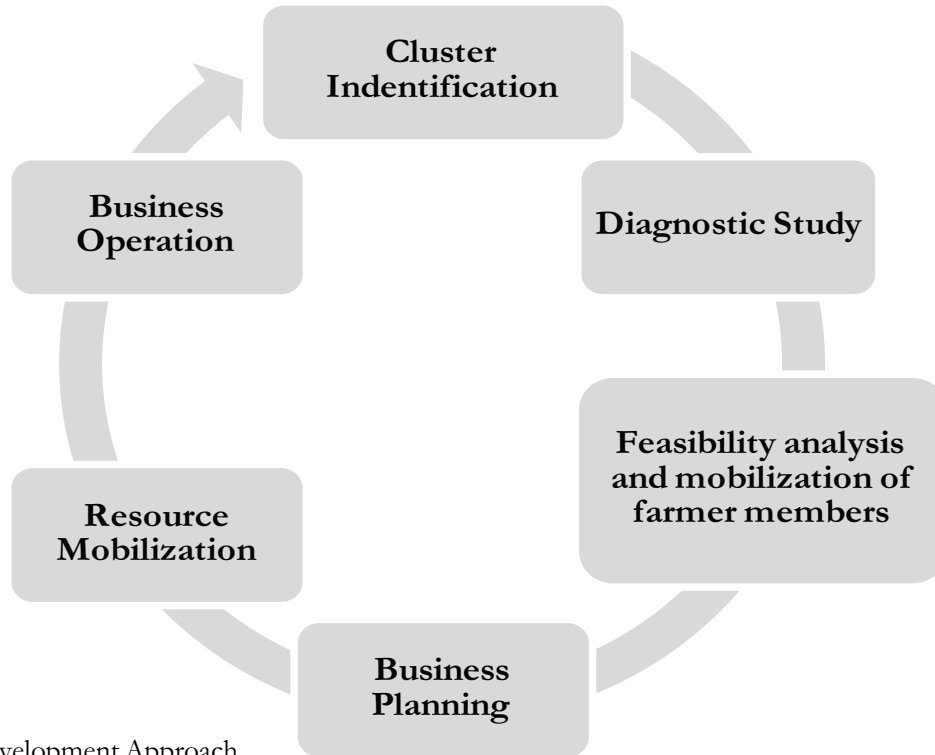


Figure 1: FPC Development Approach

Cluster Identification – Under the activity, cluster areas are to be selected by the ABPF in consultation with the respective State Government departments. For example, a cluster of 8,000-10,000 farmers may be identified, within one or two blocks, identifying 80 to 120 contiguous villages of a particular district.

Diagnostic Study – Diagnostic Study may be conducted by the ABPF in selected cluster areas. The Diagnostic Study is conducted to assess the preliminary situation of the farmers and level of agriculture in the area. The study will also help in identifying the potential interventions required and understand the specific project implementation context.

Feasibility Analysis – Feasibility Analysis for the formation of FPCs is carried out by the ABPF. A normal feasibility study should cover aspects such as financial, technical, legal, socio-cultural, environmental, and economic and resource feasibility. The Feasibility Analysis will establish a case for promotion of FPCs in the prevailing specific regional environmental context. Mobilisation of members and selection of Board of Directors may be undertaken at this stage.

Business Planning – Business Planning will be carried out by ABPF with the help of selected farmers’ representatives. Business planning is a process through which the strategic and operational orientation of an emerging FPC is shaped. A business plan with proper projections on various aspects needs to be developed. The key is to develop business plans in detail with the Board of Directors and with most of FPC farmer members, to provide clear vision.

Resource Mobilisation –Prior to launching the activities of an FPC, all required resources should be mobilised with the help of FPC representatives and Board of Directors. Financial, human (staff), technical and physical resources should be developed during this particular step. Based on the business plan the ABPF should liaise with various financing agencies and mobilise resources for hiring/purchasing and developing various resources.

Business Operations – Business operations is the commencement of procurement, production, processing, marketing and other service activities of a FPC. ABPF need to carefully train both the governing and operational team of the FPC in order to ensure smooth functioning of business operations. The entire value-chain related to various agriculture and allied products and commodities needs to be managed.

FPC Development Model - The ABPF need to ensure that FPCs will offer a variety of services to its members. This may cover almost all aspects of cultivation (from inputs, technical services to processing and marketing). The FPC’s will facilitate linkages between farmers, processors, traders, and retailers to coordinate supply and demand and to access key business development services such as market information, input supplies, and transport services. Based on emerging needs, the FPO’s will keep on adding new services from time to time. The set of services include Business and other services.

FCSC Model

Farmer Common Service Centres (FCSCs) have been conceived as small/medium scale commercially viable entities (to be) owned and managed by the Farmer producer companies (FPCs). FCSCs are designed in a manner to address the various constraints faced by farmers at the farm- and village-level starting from post-harvest storage and handling, primary/secondary processing and packaging followed by transportation to the market for sales.

FCSC act as the pivotal centre of storage, aggregation and processing raw agri-produce while providing village level basic primary processing infrastructure for post-harvest handling like cleaning and grading of food grains while washing, sorting, packing of fruits and vegetables in more hygienic conditions. FCSCs have been established by the MACP project for attaining economies of scales through aggregation of products for accessing wider markets by offering uniform quality produce as well as matching the volume demands of the buyers.

The objectives of FCSCs are to supply inputs-seeds, fertilizers and insecticides to the farmers, take up value addition activities of agri-produce and to engage in group marketing by establishing linkages with direct marketers, exporters, processors and retail chain operators. This will help to improve productivity and production, and also enable farmers to get better price for the produce.

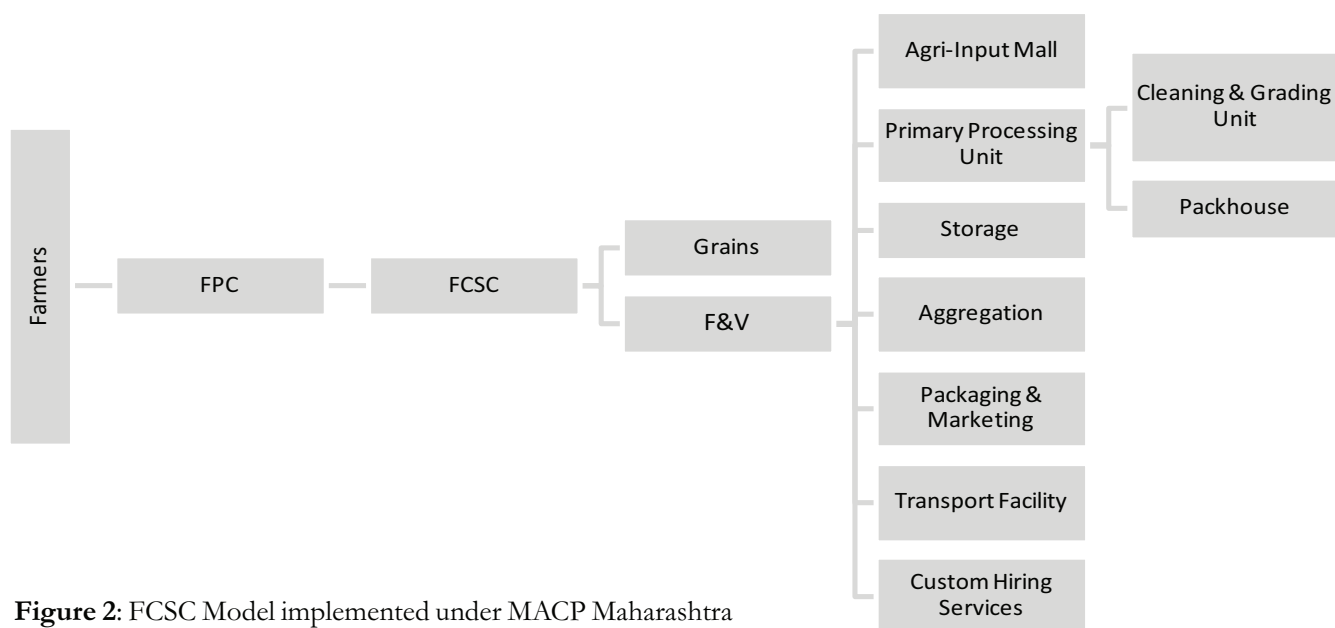


Figure 2: FCSC Model implemented under MACP Maharashtra

These activities may be undertaken with facilities other than FCSC also.

An indicative list of services includes:

Input Supply Services: The FPCs will channel low cost and quality inputs including custom hiring equipment to member farmers. It will supply fertilizers, pesticides, seeds, sprayers and pump sets, accessories, and pipe lines, where feasible.

Aggregation or Procurement and Packaging Services: The FPCs may procure agriculture produce from its member farmers; will do the storage, value addition and packaging.

Marketing Services: The FPCs may undertake storage and direct marketing (retailing, supply to processing retailers) after procurement of agricultural produce. This will enable members to save in terms of time, transaction costs, weight losses, distress sales, price fluctuations, transportation, quality maintenance etc. They may also facilitate trading on the NCDEX platform and also provide MSP related procurement services.

Insurance Services: The FPCs will channel various insurance like Crop Insurance, Electric Motor Insurance, etc.

Technical Services: FPCs may promote best practices of farming, maintain marketing information system, diversifying and raising levels of knowledge and skills in agricultural production and post-harvest processing that adds value to products. They may also channel custom hiring services for farm mechanisation and operate common facility centres.

Processing Services: The FPCs will facilitate the job-work based cleaning and grading of raw agricultural produced brought in by the farmers. The company would levy comparatively lower service charges (by 2-3%) to members as compared to the non-members. The job-work based primary processing charges for cereals and fruits and vegetables vary from Rs. 50-150 per quintal based upon the type of produce. Such facilitation services by an FPC in the initial stages actually allow it to operate under limited credit and infrastructure availability; it need not buy and store huge volume of raw produce at its premises.

Networking Services: Making various service providers and services (e.g. about input sourcing, custom hiring of equipment and product specifications, market prices) and other business services accessible to producers; facilitating linkages with financial institutions, building linkages of producers, processors, traders and consumers, facilitating linkages with various government programmes.

Transport facilitation: Transport vehicles services are also provided for, particularly in horticulture focused FCSCs.





CHAPTER 3

CASE ILLUSTRATIONS ON SOME SUCCESSFUL FPCs AND RELATED INITIATIVES IN INDIA AND ABROAD

Highlights

This chapter presents several case illustrations on successfully operating FPCs under the MACP in Maharashtra, NGO Promoted FPCs across the country and DPIIP promoted FPCs in Madhya Pradesh.

Bhose Agro Producer Company Ltd. in Solapur district with a membership base of about 508 farmers has been exporting chillies. It provides custom hiring services and operates a common facility Farmer Common Service Centre (FCSC). The FPC enjoys an annual turnover of about Rs.1.5 Crore.

Krushijeevan Agro Farmer Producer Company Ltd. in Pune district with a member base of about 500 members is into horticulture related activities. It facilitates sale of agro-inputs like seeds (potato and onion), seeds for nursery (tomato, chilli etc.) and mulching paper. The FPC facilitates custom hiring services from its FCSC in terms of tractor, rotavator, cultivator and mulching paper laying machine. The FPC also undertakes onion seed production and buffer stocking of onion. Notably, it has two pick-up trucks and has realised a turnover of over Rs. 4.5 Crore in the last couple of years.

Amarsinh Agro Producer Company Ltd is situated in district Ahmednagar with a member base of 269 shareholders. The FPC was incorporated in the 2013 and has undertaken multiple activities such as primary processing of food grains, pomegranate, onion etc. along with seed production, custom hiring and procurement of tur under the MSP etc. The FPC realised an annual turnover of Rs.46 Crore for the year 2016-17 with net profit of Rs.4.47 Lakh. The FPC has established tie-ups with Walmart, Aditya Birla Group, Future Group etc.

Vidarbha Shetkari Krishimal Prakriya and Udyog Producer Company Ltd. is situated in Amravati District. The FPC is mainly focusing on primary processing of oranges. The activities undertaken by the network includes facilitation of grading and waxing. Common facility project of this network houses a 2-tonne per hour capacity Belt Roller Grader and waxing facility to grade fruits (particularly oranges). The facility is to help grade produce of member farmers (in Grades A, B, C and D; 'Grade A' is considered the best quality while 'Grade D' is largely reject grade). The network is also setting up a 'Juice Production' facility to ensure realisation from 'Grade D' produce.

Garbhagiri Farmer Producer Company. Ltd is located in Ahmednagar district with a membership base of 418 shareholders. The business activities carried out by the network include cleaning and grading yielding a turnover of Rs. 10 Lakh. The combined turnover in addition to processing and procurement of tur at MSP amounts to Rs.2.75 Crore in 2017. The net profit accrued to the entity is about Rs.7 Lakh. The FPC also owns two outlets in Ahmednagar district for direct sale of processed food grains.

Veerachozan Uzhavan Producer Company Ltd. (VUPCL) is an FPC in Nagapattinam district in Tamil Nadu. It has strong guidance and support from Centre for Indian Knowledge System(CIKS), the Resource Agency for NABARD and SFAC in Tamil Nadu, for promotion and guidance of FPCs. The company members are engaged in seed production with valid certification from the concerned department. VUPCL is currently working the farmers for seed production. The FPC has a turnover of Rs. 49 Lakh.

Narmadanchal Farmer Producer Company Ltd. (NFPCL) was established in 2013. The FPC leveraged the pulses production of the member farmers by linking them with the SFAC for the pulses procurement program of Government of India. With this linkage, the turnover of the FPC jumped ten fold to Rs 2 Crore from Rs. 21 Lakh in the last financial year with a profit of around Rs. 2 Lakh in 2016-17. FPC has also undertaken agri-input trading businesses of seeds and fertilizers. Funds availed from NABKISAN were used to support agri-input trading and commodity trading businesses.

Valanadu Sustainable Agriculture Producer Company Ltd. (VSAPCL) is located in Nagapattinam. The company had a shareholder base of 3010 in 2017. The company presently is actively engaged in: Providing credit to shareholders for purchase of seeds and organic fertilizers with sale of Certified, Organic and NPM Paddy, pulses and oil seeds. Also the FPC procures and sells vermi-compost and bio pesticides. The company has actively pursued business activities and has been able to generate revenue of Rs.1.17 Crore. Valanadu is the foremost FPC supplying organic certified rice, and pulses in Tamil Nadu and caters to 18 organic shops in Chennai, Coimbatore, Trichy, Thirunelveli and Mayiladuthurai.

Narsingh Farmers Crop Producer Company Ltd., Madhya Pradesh, was established in 2006. Narsingh FPCL is actively involved in agri-inputs sale, seed production, procurement and sale of agriculture produce. The company is also well equipped with seed processing infrastructure and machinery and has seed processing grader with a capacity of 10 Qtl/hour. The company has 1800 shareholders. The FPC in the FY 2015-16 started the pulses procurement for the SFAC which increased the turnover from Rs. 78 Lakh to Rs. 9.79 Crore.

3.1. Introduction: Indian Illustrations

There is ample empirical evidence on successful FPOs and FPCs functioning in India and abroad. Under the MACP in Maharashtra, FPCs enjoy support for establishing common facilities referred to as Farmer Common Service Centres (FCSCs) in terms of about 75 per cent grant-in-aid assistance on a project cost of up to Rs.18 Lakh. These common facilities typically facilitate grading, sorting and packaging activities. In some cases, they also operate transport vehicles for sourcing inputs and supply of output. This is in addition to FPCs being groomed for providing input facilitation, custom hiring and/or seed cultivation and other services. An ABPF co-ordinates and guides related initiatives directly as well as through service providers or resource institutions. Apparently, the benefits to FPC members accrue through several measures: from dividend declared by the FPC; from purchase of inputs; reduction in transport cost and time; timely inputs; greater focus on quality; benefits of bulk purchase discounts; aggregated sale of produce; Better rates than APMC; and proper weighing and rate fixation due to transparent operations; availability of facilities for processing and value addition. In additions to MACP initiatives there are successful initiatives in other states ranging from Madhya Pradesh and Gujarat to Tamil Nadu. There are also NGO promoted FPCs as well as DPIP promoted FPCS through state governments.

3.2. Some MACP-ABPF World Bank promoted FPCs ^(xvi)

3.2.1. Swaroop Shetkari Producer Company Limited, Aurangabad : Sultanpur, a small village located in the Khultabad block of Aurangabad district in Maharashtra, has an inspiring live case of farmer mobilization and empowerment. In this village, the farmers could not undertake profitable cultivation despite all the hard work and efforts put into growing agricultural crops due to topographical constraints of reduced groundwater level as well as negligible marketing opportunities. The exploitative tactics of middlemen ate into their margins and barely left them with any returns. As the nature of their produce was perishable they had no option but to sell it off at whatever price was offered. An FPC was registered under the name of Swaroop Shetkari Producer Company Limited in May, 2015. In the first year of operationalization, there were only 250 members in the FPC. Its authorized share capital was Rs. 500,000 and its paid up capital was Rs. 450,000. As part of financial support to the budding FPC, it received a grant of Rs. 13.5 Lakh from MACP which was utilized to develop the infrastructure such as commodity warehouse (capacity- 1500 MT) and a cereals and grains' Cleaning and Grading Unit (capacity- 2 TPH). The membership of the FPC has almost doubled from 250 in the first year to 430 by now.

The turnover of the company has risen from a mere Rs. 10 Lakh in 2015-16 to Rs. 1.52 Crore in 2016-17. It is expected to cross the mark of Rs. 2 Crore in 2017-18. In January 2017, the company carried out procurement of 300 MT Tur under SFAC at the lucrative MSP of Rs. 5050 per quintal as against the prevailing market rate of Tur at Rs 3700 per quintal. It turned out to be a very profitable venture as the company not only gained 1% commission from SFAC but also transferred the benefit of around Rs 1200 per quintal to the farmers.

Within a short span of time, the company developed strong marketing linkages with buyers cum processors of different forms of Maize located in Gujarat (E.g. Rocket Ridhhi Siddhi, Maize Products Pvt. Ltd.) as well as Maharashtra (Kiran Poultry). Based upon their varied quality requirement, it procured 1300 MT Maize, worth Rs 1.5 Crore, from the local farmers. As the company successfully delivered the commodity, meeting the quality requirements of the buyers, it won not only the market credibility but also carved a niche for itself. It is noteworthy that the company had to sun-dry the procured lot (moisture content: 22-25%), in want of mechanical drying system, to reduce the moisture level up to 12%. They faced another critical challenge in term of mixing and matching the different qualities of lot brought by the farmers. As per the Director, the company categorised maize into 3 grades based upon their quality- high, medium and low. They, thus, categorised their buyers also for each grade. This strategy actually worked wonders for them as they were able to sell all the grades of maize. Now with assured buyers, they are confidently looking forward to the next season for increased maize procurement. The company could procure maize from farmers through the support of the financing institution, NABKISAN, which catered to their immediate small term loan requirement of Rs. 47 Lakh. Not only this, the company also performed cleaning and grading of 100 MT wheat on job-work basis for which it charged Rs. 100 per quintal. Such activity allowed the company to earn a profit of about Rs. 50 per quintal i.e. Rs. 50,000 through out without having to buy directly from farmers and store the raw produce at its premises. This saved them from mid-time credit or space crisis. The company also took a plunge into the futures trade of 60 MT soybeans in order to test the waters. They not only registered at NCDEX platform but also earned an early profit of Rs. 45,000 through it. It has not only helped boost the confidence of the BoDs and the farmer members but also developed the acumen of company officials regarding such trade. The FPC with the help of MACP and ABPF-GT has gained enhanced knowledge about various financing solutions, new trading opportunities, value addition to agricultural produce and new ways of creating market linkages for their produce. Joining hands had given the farmers of Swaroop Shetkari FPC a renewed sense of self belief and strength.

By establishing their FCSC in Sultanpur, the main mandi in the area, they were able to break the chain of middlemen and traders who were exploiting them. They created an alternative marketing system by pursuing direct marketing i.e. avoiding middlemen. Today, Swaroop FPC is taking a step forward towards establishing an Agri- input mall (licensing under process) since the small and marginal farmers in the vicinity of the company are still unable to get quality input- seeds, pesticides and fertilizer at economical prices. The FPC also intends to diversify its product portfolio by setting up a dall mill which would add to the profits. The company is also keen to enter the dairy industry by pursuing Gir cow milk processing as it has potential to garner higher profits. The creation of direct market as well as instant financial support has helped these farmers receive their returns almost instantly. If the produce is graded, the remuneration is will be higher.

3.1.2. Jai Siddheshwar Krushi Producer Company Limited, Aurangabad : The Company was registered in August, 2014 with the objective of producing quality seeds of Onion that would generate good income and market services. Over the last 3 years, the company proved the point of that even a small company can produce and market activities seed done by large corporates. They have set an example by forming a company of 100 small farmers in Sillod Tehsil, Aurangabad district in Maharashtra which need successfully produce foundation seeds at par with National standards.

Such has been the tremendous growth in the activities of the company that its membership has soared past 500 members now, starting from 100 members initially. The company received a grant of Rs. 13.5 Lakh from the MACP. The company established a cleaning and grading unit (2 TPH), dal mill (2 TPD) and godown of 500 MT capacity. The FPC provides various services to its members, including the distribution of foundation seeds between its members (from those who produce them to those farmers who would sow them), providing essential inputs for quality-seed production, among others. The company's turnover has reached an all- time high of Rs. 2 crore in 3rd year starting from Rs. 50 lakh in first year and Rs. 1.5 crore in the second year.

As a result of these initiatives, the farmer members of the company have been earning an additional income of at least Rs. 1, 000 per quintal for Tur procurement by FPC for SFAC. Also, since the company is carrying out job work based cleaning and grading of wheat, the farmers make profit of up to Rs. 200-250 per quintal on the sales of processed wheat. The most profitable business of all has been onion seed production wherein Rs 23,000 per quintal has been the benefit transferred to the producers. The FPC entered into contract farming for onion seed production with a Nandurbar based company for a selling price of Rs 28, 000 per quintal while that in the Sillod mandi was Rs 5, 000 per quintal. The company, however, faced the challenge of cold storage which is located in Aurangabad city, at a distance of 100 km. Yet, the onion (seeds) can be stored without cold storage for up to 1 year. In fact, 100 quintals of certified onion seeds have been marketed this year. The FPC markets these certified seeds in 50kg bags to seed companies based in Jalna, Mahabeej, Beej Nigam and an American company located in Bangalore.

The FPC has set up its collection centre in Baradi which is located at 12 Km from Sillod. It caters 5-6 villages in the radius of 10-15 Km. The company director plan the marketing strategy, target markets and target customers during the harvesting season itself. It not only gives them a clear edge in planning but also sets the road map for the escorting the work.

The company successfully processed 100 MT Tur dal through job work, and sold same and sold same at the rate of Rs. 80 per kg. Similarly, it has processed 10 quintal moong dal. Maize was procured from farmers and then dried and graded into 3 categories. Grade A was sold to poultry feed units, grade B to flour mills while grade C to beer processing units located in Ahmednagar and Aurangabad respectively.

The FPC is now expanding its activities to include turmeric processing and packaging in 500g and 1 Kg packs with company branding. It has received 15 Lakh as loan through MFI, for purchasing the machinery of the setup (capacity- 2 TPH) for boiling, drying and polishing turmeric rhizomes. They also look forward to setting up a seeds processing and packaging centre and ginning and pressing unit in the region. The Jai Siddheshwar Krushi Producer Company is an ideal model for others to follow, with a group of committed people working together in a democratic fashion. In fact, it is far more productive than an individual trying to farm all alone. Such FPC models allow for economies of scale, which make it easier for small holding farmer members to compete in an economy of mega corporations.

3.1.3. Sai Pravara Shetkari Producer Company Limited, Ahmednagar : The Company works towards actively promoting its core activities - such as procurement, aggregation, cleaning and grading, packaging of the cereals and pulses - in some of the remote villages of Ahmednagar district located in Maharashtra. The FPC works closely with more than 700 farmers, including 500 shareholders which consist of about 175 female farmers, who are also involved in the commercial cultivation of some of these products; the company started with mere 250 farmer members in the year 2015-16.

The FPC's pioneering efforts to develop infrastructure in all these areas have enabled the farmers to actively move up the value chain, and also enabled the company to post a turnover of Rs. 1.5 crore till now in 2017-18 which showed an increasing trend over that of Rs. 1.25 crore in 2016-17.

Because of this initiative, the involved farmers — mostly small and marginal — now get better prices for their produce, aided by innovative steps like the setting up of primary processing facilities for cereals and a cattle feed unit with capacity of 1TPH and 2 TPD respectively. It is noteworthy that the FPC received a grant of Rs 13.5 lakh from the World Bank through MACP in 2015 for setting up the required infrastructure for primary processing facilities. In 2016, the company successfully received the grant of Rs 5 Lakh from NABARD for establishing a dal mill. Currently, the total number of days for which the cleaning and grading unit is operational in a year is 200 days while that for dal mill it is 70-80 days. These processes have improved the capacity of farmers, and helped in value addition, improved processing, sorting and grading, hygienic storage and transportation.

It has set up a cattle feed unit with 2 Ton per day capacity. The Selling price of pellet is Rs. 950 per 50 Kg wherein the total expenses are Rs. 850 per 50 Kg. Thus the FPC is able to make a reasonable profit of Rs. 200 per quintal. Still, the company is facing the issue of excessive electricity consumption by the pellet machine which they intend to solve by replacing the same with a more electricity-efficient one. The company's USP is its diversified business portfolio and therefore, the company has set up 2 collection centres in Kollar and Keshapur which cater to the procurement from 10 villages. These collection centres are located at a distance of 3 km and 7 km respectively from the Farmers' collective service centre in Chincholi. The collection centres are the points of aggregation of raw produce of maize and soybean. The material is held at collection centres to lower the moisture content in order to prevent any damage during storage. As the member base is continuously increasing along with the demand in the market, the FPC is in process of expanding its number of collection centres up to the capacity of 100 MT.

In the year 2017-18, the company procured 48 Lakh worth of maize and 30 lakh worth of soybean. The company also sold dal locally worth Rs. 70, 000-80, 000. In the fruit and vegetable segment, the company successfully procured and sold onion worth Rs 10 Lakh in the local mandis. Not only this, the company has set up an Agri- Input centre wherein it is selling pesticides and total turnover from same was Rs. 50 Lakh. Notably, the FPC gained 10% discount from volume purchase of pesticides and fertilizers from dealer. They have also secured Direct Marketing Licence (DML).

In order to meet its working capital requirements, the FPC managed to receive short term loan of Rs. 30 Lakh from NABKISAN Finance.

The company has created a strong marketing network across the state and is continually working towards establishing a national presence for its certified primary and secondary processed produce from local farmers. This has brought rural produce from the remote villages to the mainstream market. Once the farmers start cultivating commercial crops, such as soybean and other items, they become the FPC shareholders; and the company then helps the farmers across various stages of value chain so that they don't just limit themselves to the supply issues. This movement across the growth of value chain has ensured economic returns of Rs. 30-200 per quintal depending upon the produce as well as the type of buyer. The farmer producer company provides doorstep support in collection, storage, transportation as well as primary processing of the produce, and offers the required infrastructure for effectively undertaking these value chain-based activities.

Thanks to the firm's pioneering work in marketing their products, the 'Sai Pravara' brand name is well-recognized and readily available in the market — especially for soybean and maize. The company tied up with ADM for Soybean and sold 17 MT of it worth Rs 5.5 Lakh. But distance is biggest constraint while dealing with ADM which is about 200 km. from FCSC. Therefore, the FPC engaged with Maharashtra Oil mill, located at 110 Km from the FCSC. The FPC tied up with Maize giants of the global market- CP Seeds and delivered 150 MT maize at the rate of Rs 1325 per quintal which was Rs 75 per quintal higher than the then prevailing market price. It also supplied 234 MT Maize to local company- Rajyavardhan at Rs 25 per quintal higher than the then prevailing market price. The FPC is in process of vendor-registration with Big Basket for Fruit and Vegetable segment.

Thus, it can easily be said that the FPC has put in place a viable model of agribusiness for market-oriented growth of small and marginal farmers. The FPC has also been able to leverage the financial resources needed for working capital so as to assist farmers from financing institutions.

3.1.4. Vikas Agro Farmer Producer Company Limited, Latur : The Company was incorporated in August 2015 with the objective of creating a rural distribution chain that processes and sells farm produce after procuring it from small and marginal farmers at market prices. It is a shining example of addressing food security issues at both the production and consumption levels through a model managed by the farmers themselves. The FPC employs women farmers as well, who not only participate in management decisions but are also involved at every stage of the chain. Such has been the tremendous growth in the business of the company that its membership has almost doubled to 500 members today, from 300 members initially. The FPC management expects it to reach 1000 by end of 2018-19.

The company received a grant of Rs 13.5 Lakh from the MACP. Which was used to establish a cleaning and grading unit (2 TPH) and a godown of 500 MT capacity. The FPC provides various services to its members, including the aggregation, primary processing, custom hiring and marketing facilitation. The company's turnover has reached an all-time high of Rs 2 crore in 3rd year starting from Rs 1 Crore in second year. The company is expected to achieve a turnover of Rs. 5 Crore by March, 2018-19. As a result of these initiatives, the farmer members of the company have been able to sell their Soybean. Also, since the company is carrying out job work based cleaning and grading of wheat, the farmers make profit of up to Rs. 200-250 per quintal on the sale of processed wheat. The Vikas Agro FPC looks forward to establish its own brand which would signify quality and affordability. By aiming to sell grains and oilseeds like soybean in small packets at competitive prices, the FPC would not only ensure high quality standards, but would also cater to the food needs of its rural members.

This initiative of the FPC has been highly beneficial for the community — giving food security by making products and goods of regular use available to the rural consumers, providing fair and direct market access to small and marginal farmers, and generating sustainable livelihoods. In addition, it has created a local distribution and village level supply chain to link the farmers to the end customers, thereby, constructing a strong supply chain at the rural level. This ensures that the capital rotates within the villages and, thus, strengthening the rural economy.

3.1.5. Bhose Agro Producer Company Limited, Solapur : The network with membership base of about 508 farmers formed a producer company in 2015. At the outset, this network commenced joint operations with joint marketing of four varieties of chilli. The FPO has directly exported 60 tonnes of chilli to Dubai, and sold 150 tonnes of chilli to exporters and retailers directly in the last one year. The selling price of chilli by the FPC is about Rs. 36/kg, when sold in the local market, but when exported yields Rs. 46/kg. Thus, the network has helped member farmers enhance their value accruals. As a matter of fact, the network has charged member farmers a meagre Re. 1/kg for providing this service and earned Rs. 4.6 Lakh as profit in one year by this activity alone. Significantly, the FPC had a turnover of around Rs. 1.5 Crore from this activity alone in the past one year. In addition, farm implements are given to member farmers and non-members on rent for deploying on their respective farm lands. The FPC has earned Rs.3 Lakh as rent from such custom hiring services in the year 2016-17. In 2016, the network's proposal for a common facility was sanctioned assistance under the MACP at a project cost of about Rs. 18 Lakh. Land for the project has been leased out by the FPC for a period of 30 years, and the land lease agreement is duly registered. The lease rent for the land is Rs. 18,000 per year. The size of land is about 10,000 sq.ft. and the built-up area of the factory shed is 5,000 sq.ft. The Producer Company is to establish facilities of cleaning, grading and 25 kg size packaging of various commodities. In this context, the major related commodities include wheat, jowar and maize. The FPC has also set up a flour mill to manufacture flour from wheat and sell such flour in 5 kg size packs. Forward linkages have been established with local bazaars and bulk traders. Today, the factory shed for the project with MACP assistance has already been constructed and the FCSC is functional.

The FPC has also obtained licence from the Food Safety and Standards Authority of India (FSSAI) and secured NOC from the Pollution Control Board (PCB). As a subsequent initiative, the FPC has also planned to provide seed of different crops to its members so as to ensure supply of quality and healthy seed material at cheaper rates. Another initiative planned is custom hiring services of mechanised equipments to members. Some of these equipments are generally not available on rent in the market whereas these can help reduce the production cost for farmers. For example, the cost of mulching paper laying by labour is Rs. 4,000 per acre whereas the cost of mulching paper laying through the advanced equipment is barely Rs. 1,500 per acre.

Apparently, altogether a total of 2,170 acres of land belonging to 300 members is under cultivation. It may be assumed that approximately 50 per cent of the area growing different crops in different seasons are considered for providing the seed service facility. The entity is competing successfully against even National value chain lead firms in this sub-sector such as the Indian Tobacco Company (ITC) promoted "Aashirvaad Atta".

3.1.6. Krushijeevan Agro Farmers Producer Company Limited Pune : The Company a commercial initiative by farmers, had decided to harness the benefits of collective action for making advanced agricultural practices available to members. The FPC was registered in 2014. Junnar taluka of Pune district has traditional reputation as a vegetable growing region, hinging on the taluka's perennial vegetable production potential and high quality of produce. Since early years of operation of the network, farm equipments have been given to member farmers and non-members by

the FPC on rent for using them on their respective farm lands. The farmers of Junnar and the FPC have progressively adopted improved agricultural practices so as to maintain their reputation and edge in the market. Improved practices have found their way into all stages of agriculture covering production, processing and marketing activities.

These practices are targeted at reducing costs, enhancing efficiency and overcoming bottlenecks like moisture stress, labour shortage, post-harvest losses and market access. Initially, the FPC sold agro-inputs like seeds (potato and onion), seeds for nursery (tomato, chilli, cabbage, brinjal and cauliflower) and mulching paper. They subsequently progressed into the business of onion seed production as well as a range of other activities. The FPC realised that modern agro equipment is needed by farmers to undertake improved agriculture practices.

Modern equipment assistant in productivity enhance quality control compared to manual processes. The equipment also enhances operational efficiencies and is more effective. Basically, the most in-demand mechanised services include land preparation, sowing, harvesting and transportation of inputs and produce. Land preparation includes three major operations viz. ploughing, levelling the land and bed preparation. Relevance of these equipments are also growing due to burgeoning labour costs and increased concerns about their timely availability.

As a matter of fact, agricultural activities in general are facing immense challenges due to labour shortage and increased wage rates. These challenges have severely affected sowing and harvesting activities. The problem has become pronounced in recent years due to shortened sowing and harvesting windows because of erratic rains and extension of the monsoon. It has thus become imperative for them to adopt mechanised processes to expedite activity, saving on labour costs and minimise losses and thereby enhance livelihood income for vegetable cultivation. In the case of vegetable cultivation, mechanised processes are also favoured for laying of mulching paper and inter-culture operations. Mulching is undertaken by 70 per cent of tomato cultivators and many other vegetable cultivators.

The FPC today has about 500 members (grown from barely 50 members initially) and includes 25 SHGs or smaller POs with almost 20 members each merged. There are 12 directors who perform different roles in the FPC which has enjoyed a turnover of about Rs. 1.5 Crore per year on an average in the last three years. The FPC members are largely into cultivation of horticultural crops like tomatoes, potatoes and onion.

The FPC has been supported by the ABPF in the preparation of a business plan for custom hiring equipment. The project has been sanctioned assistance under the MACP at a project cost of Rs. 15.5 Lakh and with about Rs. 7.5 Lakh as assistance under the common facility scheme; a tractor, rotovator, cultivator and mulching paper laying machine have been secured by the FPO in 2015. These are offered to member farmers at 20 to 30 per-cent less than market rates. For the 3 months cropping and harvesting season of tomato, for instance, there is apparently an acute shortage of tractors and farming and harvesting facilities. The typical loss to a farmer is in the range of about Rs. 2 Lakh per acre per year. This is because, after the three months of farming and harvesting season of tomato, the yield per acre is about 20 MT per acre. If harvested and brought into the market on time, the earnings per tonne are even about Rs. 30/kg yielding about Rs. 6 Lakh to farmers. However, during this period tractors and farm implements are available with a lag of 4 to 5 days, and many farmers bring out part of their harvest with 15-day lag when prices may fall to even Rs. 20 per kg!

The gross income from provision of custom hiring equipment services to members, largely for potatoes and onion cultivation, has been about Rs. 30,000 p.m. Salaries, fuel and maintenance expenditure of tractor and equipment accounts to about Rs. 23,000 per month yielding a net income from operation of this service to the FPC of about

Rs. 84,000 per year. In addition, member farmers receive this service at 20 to 30 per cent less than the exploitative market prices.

The FPC also undertakes production of good quality onion seeds in Yavatmal and Buldhana regions. In this activity, in the recent past, the network has produced about 2000 kg of seeds and sold them at the rate of Rs. 2000 per kg to members. This is when market rates hover around even Rs. 3,000 per kg. This activity has lowered the related procurement cost to members by 30 per cent and facilitated gross income to the FPC of about Rs. 40 Lakh, of which net income after expenses has been to the tune of about Rs. 10 Lakh. Quality seeds are now available to member farmers aiding increase in productivity. Apparently, they had faced severe problems in securing quality seed earlier. The FPO has also undertaken direct marketing efforts and received fiscal assistance to establish two collection centres for horticultural produce from the Maharashtra State Agriculture Marketing Board. These centres are equipped with grading machines and packaging crates. The centres are supported by two 2 MT Bolero pick-ups costing about Rs. 7 Lakh each and partly subsidised by about Rs. 2 Lakh each by the Maharashtra State Agriculture Marketing Board (MSAMB). The collection centres have a turnover of over Rs.1 Crore and yielded net income to the tune of about Rs. 15 Lakh to the FPO. The FPC has also worked with the government vis-à-vis buffer stocks targets in storing onion over May end to August for about 3 months in 2015 as a buffer stock storage initiative. About 1,000 MT of onion has been procured at Rs. 22/kg, stored and sold at a cost of Rs. 55/kg yielding about Rs. 33 Lakh as gross income to the network.

The network has also undertaken export of pomegranate to the tune of 20 MT to Dubai. The Agriculture and Processed Food Development Authority (APEDA) had introduced the FPC to exporters which facilitated such transaction. Furthermore, under the Public Private Partnership for Integrated Agricultural Development (PPPIAD) the FPC has leveraged assistance to the tune of about Rs. 60 Lakh under the RKVY scheme. The case illustration emphasises the critical role of various activities undertaken by such successful FPCs which even realised a total business of about Rs. 4.5 Crore in the last 2 to 3 years, benefiting thousands of farmers in the region. The FPC plans to expand its marketing network and enhance its export turnover.

3.1.7. Amarsinh Agro Producer Company Ltd. Ahmednagar : A common facility supported under the MACP in Karjat, Ahmednagar district has a project cost of about Rs.18.5 Lakh, to facilitate cleaning, grading, packaging and transport as to benefit the “Amarsinh Agro Producer Co. Ltd.”, representing the interests of about 269 marginal and small farmers. The activities undertaken by the network include: facilitation of inputs, grading, sorting and packaging of onion and pomegranate; and seed production of horse gram.

The members were initially using certified seeds and have now started using foundation seed which has led to increase in the production of horse gram. The members invested Rs. 1,000 per acre in production activity and have gained Rs. 6,000 per acre, a net profit of Rs. 5,000 per acre. The farmer members bring produce to the FPC for value addition in terms of cleaning, sorting and grading of onion and pomegranate. The processed produce of the farmer members is sold to traders and the local market. Since inception this network has been involved in a range of service providing activities.

With a membership base of about 269 farmers it was registered in 2013 in Ahmednagar district. The built-up space and land for the common facility was secured on rental basis at Rs. 40,000 per year. Basically, the work space in this project is used as a collection facility, with tables for grading of onion and pomegranate, their packaging and sale under a common brand. Today, the average turnover of the producer company is about Rs.46 Crore and profit was about Rs 4.47 Lakh for the year 2017. The Farmer Producer Company is involved in grading, sorting, packing and sale of onion and pomegranate.

The producer company's godown is a warehouse corporation accredited godown. Today, the network also plans commencing warehouse receipt finance. This will enable members of the producer company to secure loans against warehouse receipts. The FPC plans to purchase a vegetable pick-up van for the purpose of better transportation and supply of vegetables.

The Producer Company aims at increasing the produce processing capacity of the processing units to cater to the larger markets and increase its market penetration. They are also focusing on expanding the seed production business as members are substantially benefitted. They also aim at value addition to pomegranate in terms of "Anardana". The producer company also plans to commence a custom hiring facility so as to help increase considerably the yield per hectare for farmers. The FPC is today supplying even to Wal-Mart and has realized a turnover of over Rs. 40 Crore through MSP services with respect to Tur.

3.1.8. Vidharbha Shetkari Krishimal Prakriya and Udyog Producer Company Ltd. Amravati : The activities undertaken by the network include facilitation of grading and waxing of fruits (penitentiary oranges) The work space in the common facility project of this network houses a 2-tonne per hour capacity Belt Roller Grader and waxing facility to grade fruits (particularly oranges). Basically, the facility includes an elevator conveyor with hopper, inspection roller, roller grader, collection belts and control panel. The total project cost in this case is about Rs. 28.47 Lakh with FPCs' contribution being Rs. 14.97 Lakh and balance being grant-in-aid or subsidy under the MACP. The facility is to help grade produce of member farmers (in Grades A, B, C and D; 'Grade A' is considered the best quality while 'Grade D' is largely reject grade). Earlier, farmers were unable to do such grading due to lack of technology, which led to lower price realisation (and also exploitation by local traders and brokers). In fact, the proposed facility will enable this network to get realisation of even over 50 per cent! The group's business plan also involves aggregation and collective marketing of oranges to premium quality-seeking markets, reducing dependence on local traders and contractors.

The network is also setting up a 'Juice Production' facility as a second stage activity to ensure realisation from 'Grade D' produce. The first sample lot of bottled juice has been produced from 'Grade D' oranges. Recently, erratic weather conditions, increase of duty on orange imports in Bangladesh, instability in Iraq, floods in Chennai and certain other factors have led to low demand and hence distress sale by farmers. In the light of need for storage to extend the shelf life of produce and avoid distress sale, it is also important to help farmers earn higher value accruals through establishing facilities like cold stores.

3.1.9. Garbhagiri Farmer Producer Company Ahmednagar : The Garbhagiri Farmer Producer Company was established in 2014. It has a total of 418 members. The land owned by this FPC has been secured on lease basis for a 35-year period at Rs. 300 per month. The cost of the MACP supported common facility for the project of this FPC is Rs. 22 Lakh. Major crops in the FPC's catchment area are onion, wheat, maize and jowar. Already, business activities carried out by the network include cleaning and grading, yielding a turnover of Rs. 10 Lakh. The combined turnover in addition to processing and procurement of Tur at MSP amounts to Rs. 2.75 Crore in the year 2017. The net profit accrued to the entity is about Rs. 7 Lakh. Garbhagiri Farmer Producer Company owns two outlets in Ahmednagar.

The primary objective of this FPC is to develop a community of producers who come together for collective purchasing of the input, the primary processing and the aggregated sale of the produce. This network also foresees the employment of transportation services to deliver the produce directly to the consumer/secondary processor. The objective of the network is to develop a channel for input marketing such as seed and fertilizers for the crop so that the benefit of direct purchase and sale is cascaded to the producers.

The post-production involvement is to aggregate the produce of the FPC members in the cluster and carry out the sorting and grading activities, i.e., primary processing of the produce in order to segregate in terms of good quality. The purpose of this value addition is to help the producers demand a better sale price for their produce. Producers involved will benefit from the aggregation activity as well, carried out by the FPC. The bulk aggregated produce will be directly sold to the secondary processor or the consumer, bypassing the middleman and hence providing the best sale price to the producers. The FPC is also exploring brand registration.

3.3. Some NGO Promoted FPCs ^(xvii)

The NGO- ASA promoted FPCs have to work with small holders and largely member farmers for business transaction as they were into better cotton programme including input supply. Other NGO (Srijan and PRADAN) promoted FPCs in Madhya Pradesh have much larger capital base (Rs. 3 Lakh-51 Lakh) and all of them have received support under MPDPIP. Their user base is also large (2200-4000), with some companies involved dairy and poultry business in large scale.

Another NGO, Access Development services works for small and marginal farmers and facilitates their organisation into farmer business groups (FBGs). FPCs are mostly crop specific like ginger in Udaipur, vegetables in Dungarpur, and tomato, potato, beans, peach and ginger in Uttarakhand where SAFAL (NDDB) collect vegetables from the FPC. The NGO has relationship with various input companies like Monsanto, Pioneer, Morarka, etc. It received support from different agencies for different crops, like for ginger from Sir Ratan Tata Trust (SRTT) and also from Rashtriya Krishi Vikas Yojana (RKVY), for chilli from RKVY and also from Hillary Clinton Foundation for women empowerment, from NAIP in Dunagarpur, Banswara in Rajasthan and also in West Bengal.

3.3.1. Veerachozhan Uzhavan Producer Company Ltd., Tamil Nadu : Veerachozan Uzhavan Producer Company Ltd.(VUPCL) is an FPC promoted by experienced farmers belonging to Kuthalam, Mayiladuthurai in Nagapattinam district. It has strong guidance and support from the Centre for Indian Knowledge System(CIKS), the Resource Agency for NABARD and SFAC in Tamil Nadu, for promotion and guidance of FPCs. The FPC's total number of shareholders has increased from 452 in 2016 to 705 in 2017. VUPCL has got required licenses from the necessary departments to carry out their business without any hassles. The company is members are engaged in seed production with valid certification from the concerned department. VUPCL is currently working with the farmers for seed production on their seed plots and have already produced 92 tonnes from these farmers. VUPCL has centralized market tie ups and storage facility. The sales revenue amounted to Rs. 49 Lakh.

3.3.2. Narmadanchal Farmer Producer Company Ltd., Madhya Pradesh : Narmadanchal Farmer Producer Company Ltd.(NFPCL) has been promoted by Vrutti Livelihoods Resource Centre(VLRC) under NABARD's Produce Fund in Sehore district of Madhya Pradesh. While established in September 2013, in 2016-17, the FPC leveraged pulses production of member farmers by linking them with the SFAC for the pulses procurement program of the Government of India. Because of this linkage the turnover of the FPC jumped 10 fold to Rs. 2 Crore from Rs. 21 Lakh in last financial year. Because of the increase in turnover and cost efficiency achieved in procurement, the FPC made a profit of around Rs. 2 Lakh in 2016-17. FPC has also undertaken agri-input trading businesses of seeds and fertilizers. Funds availed from NABKISAN were used to support agri-input trading and commodity trading businesses undertaken by the FPC.

3.3.3. Valandau Sustainable Agriculture Producer Company Ltd., Tamil Nadu : Valanadu Sustainable Agriculture Producer Company Ltd.,(VSAPCL) is an FPC promoted by experienced farmers in Sirkazhi,

Mayiladuthurai and Vedharanyam in Nagapattinam. The company increased its shareholder base from 2620 in 2016 to 3010 in March 2017. The company presently is actively engaged in:

- Providing credit to shareholders for purchase of seeds and organic
- Procurement and Sale of certified, Organic and NPM Paddy, pulses and oil seeds
- Procurement and sale of bio Product-Vermicomposting, Bio pesticides etc.
- Purchase of value added products and handicraft products from SHG members
- Inculcating a habit of savings amongst the farmers and women
- Making the members credit worthy to avail formal credit for their development
- Enabling the livelihood of the farmers through marketing or sale of milk locally

The company has actively pursued the business activities and has been able to generate revenue of Rs. 1.17 Crore, benefitting more than 1400 farmers. Valanadu is the foremost FPC supplying organic certified rice, and pulses in Tamil Nadu and caters to 18 organic shops in Chennai, Coimbatore, Trichy, Tirunelveli and Mayiladuthurai. VSAPC has 1320 women shareholders(42%) and has conducted a series of trainings for standardization, skill development and marketing of produce made by its women shareholders.

3.3.4. Ektha Apparel Producer Company Ltd. Karnataka : Ektha Apparel Producer Company Ltd. (EAPCL) is promoted by the Self-Help Groups (SHG) viz. Sunrise SHG, Prarthana SHG and Mercy SHG promoted by Industree Producer Transform Private Ltd. (IPTPL) and has its administrative and project site at Bengaluru, Karnataka. It is involved in manufacturing of textiles finished product with work order received from IPTPL on Job Work basis. EAPCL is also actively involved in providing skill job to SHG members and other promoted by IPTPL. Currently there are 134 active staff involved in day to day activities of the FPC. The company was able to achieve rapid growth in FY 2015-16 with a turnover of Rs. 361 Lakh and profit of Rs. 2.35 Lakh. The company initially started with a paid up share capital of Rs. 1 Lakh and increased the same to Rs. 25 Lakh mobilized from existing SHG members. The company has arrangements and tie- up with brands such as Mother Earth, IKEA, Habitat, Kinda, etc. The FPC has turnover of Rs. 370.62 Lakh for FY 2014-15 with job works income of Rs. 56.97 Lakh. EAPCL produces 22000 pieces every month and 200 SHG members are employed.

3.3.5. Narsingh Farmers Crop Producer company Ltd., Madhya Pradesh : Established in 2006, Narsingh FPCL is actively involved in agri-inputs sale, seed production, procurement and sale of agriculture produce. Narasinghpur district is well known for sugarcane production and production of jaggery from sugarcane. The company procures, aggregates and sells sugarcane in the market at better margins as compared to what is offered by the middlemen. The company is also well equipped with the seed processing infrastructure and machinery and has seed processing grader with a capacity of 10 Qtl/hour. At present, the company is operating from its rented godown of 200 MT capacity. The company has 1800 shareholders spread over 35 villages in and around Narasinghpur. Pulses are also a major produce of the farmers at Narsinghpur. On the backdrop of this production, FPC in the FY 2015-16 started the pulses procurement for the SFAC. It turned out to be a very successful programme for the FPC and the turnover increased from Rs. 78 Lakh to Rs. 9.79 Crore. The profits also increased by 140% and the FPC was able to benefit more than 1000 member farmers in the process.

3.3.6. Dhari FPC (Amreli district, Gujarat) : Evolved by farmers of the Water Users Association (WUA) established by DSC, DPCL has been into supply of agricultural inputs to its members and on lending of NABARD loan to members of WUAs for land development. The other activities carried out are soil testing, utilizing

Trichoderma and castor cake for wilt management in groundnut crop, integrated pest management and trial of high yielding varieties of groundnut and wheat.

The DPCL has also introduced rose cultivation in the area. Linkages have also been established with agriculture universities and research stations to train farmers and facilitate extension of successful technologies. The DPCL has also initiated wheat grading. The FPC also implemented rainfall insurance for members as well as non-members on commission basis in collaboration with the Agriculture Insurance Company of India. The FPC is also involved in groundnut and wheat seed production, grading and sales. The Better Cotton program (BCP) for IKEA, a Swedish firm is also implemented through the FPC. The cotton projects focus is on Better Management Practices (BMP) in cotton and the FPC provides market tie ups. 4500 farmers in 20 villages in Dhari and 5000 farmers across 40 villages in Visnagar are under the BMP.

3.4. International Illustrations

There are a number of international illustrations on successful producer organizations. ^(xviii)

Europe : Development agencies and the state have initiated a joint stock company model involving non-producers also to tackle the problem of capital for growth. In such a company, a part of the equity of the FPC is held by non-producers. In one such company (Agrofair) in Europe which is into fresh fruit import and marketing including fair trade bananas, there are more than 15 producers' organization members and other ethical investors. The FPO has achieved sales of the order of Euro 16 million and is a major supplier to European supermarkets.

Ghana : In Ghana, Farmapine Ghana Limited formed in 1999 for members of the pineapple growing cooperatives who own 80% shares of the company and rest being with two former pineapple exporters; includes 160 farmers and has contracted with 60 other growers. The network has been able to increase the exportable fruit from 30% to 45% of the total at farmer level within 2 years. Similarly, in Ghana again, a farmer owned cocoa buying company-Kuapa KoKoo Limited (KKL), was set up with support from Twin Trading. Twin UK membership includes 24 farmer co-operatives in 8 countries representing 163000 farmers. In 1995, Kuapa KoKoo Farmers Union (KKFU) was set up which represented primary societies with 48854 members in 2009. KKFU, along with non-producing shareholders like the Body Shop, Christian Aid and Twin Trading set up a joint stock company (Oinne) in 1998. This Divine Chocolate Limited had a turnover of USD 19 Million in 2007. In 2000, a DFID guaranteed bank credit from a major UK commercial bank of the order of 400,000 pounds helped the company not only with lower cost finance but also facilitated Kuapa Kokoo to own 33% shares of the company. Further, Body Shop which had 14% shares donated them to Kuapa Kokoo, when L'Oreal took over Body Shop in 2006. This led KKFU to own 47% of the Company.

Denmark : Denmark has a large number of organizations known as "Cooperative Companies" or simply "Dairy Companies" which work on cooperative basis. They are given concessions under tax laws and the Companies Act. By-laws of organizations should provide that the company's aim is to benefit producer members and that financial surpluses are distributed according to patronage/turnover. They collect 87% of total milk delivered in Denmark. In CCs, the general body is supreme like in a public company. Directors are elected by ballots. CEO is appointed by the directors. There are only 1-2% non-member users. Reserves can be accumulated without attracting tax. CCs are not taxed on purchase of their member's milk. The resulting tax liabilities which cooperatives bear are very small.

New Zealand : New Zealand Dairy Co-operative Companies (CCs) are well organized and manufacture entire range of dairy products and have 100 percent share of the milk products market. Similarly, in the liquid milk business, they

have a high market share. An elaborate and favourable licensing system ensures cooperative monopoly in milk products. Co-operatives attract new members on the basis of better price and service and a member is supposed to patronize the CC for the entire season. The apex organization, New Zealand Dairy Board, is controlled by elected members of producer CCs. It is essentially an export federation of cooperatives. Under the Dairy Cooperative Company Act, only a supplier can become a member in a CC. Shares are owned by him/her in proportion to the milk supplied e.g. one share for 250 kg of milk fat. The CCs are controlled by BoDs. Members do not get dividend on their share capital and share remains at the face value. The CCs mainly raise capital through retention of surplus fund, depreciation provisions, bank overdrafts, and term loans from the trading banks, especially through Dairy Industry Loan Council, formed under the Dairy Board Act. It raises funds from the market by way of bond issues and syndicated loans within New Zealand. The government exempts profits distributed to suppliers or transferred to reserves from taxation. CCs are by definition a non-profit mutual organization and, therefore, incidence of taxation is at the level of individual producers.

Australia : Dairy in Australia is also dominated by CCs. They receive around 70% of farm milk collection and have 60% share in liquid milk market. Legally, dairy cooperatives are public companies with member obligations limited to face value of share. In the case of a CC, shares are not listed on the stock exchange. The pattern of share ownership decides the cooperative status of a company. Income tax laws confer very tangible financial advantage upon cooperatives. If the company structure does not conform with the definition of cooperative status of income tax and assessment legislation, it is subjected to taxation levied on public companies which is 46% of profit before tax, whereas in case of CCs, the corporate tax is levied on the profit after dividend i.e. the retained profits or capitalized profits.

For getting CC status, a company must have its primary objects as defined in Article 117 of Australian Income Tax Act. Broadly, it must serve primarily in the interest of user members in handling their produce or services for their benefits, and 90% of the company must be with its members e.g. dairy farmer shareholders. Besides, a CC having 90% of its paid up capital held by active user members gets a tax deduction of the entire principal repayment of any money loaned to it by government to enable the company to acquire the assets which are required for the purpose of carrying on business of the CC.

Philippines : An FPC (Normin Crop) of the northern Mindanao Vegetable Producers Association (Normin Veggies) in Philippines has been successful to interface with large buyers for its small farmers of vegetables by working on co-operative lines.

Sri Lanka : In Sri Lanka, farmer companies are those established under the Companies Act as People's Companies registered with the Registrar of Companies and follow rules and regulations of a private company. They are registered with minimum 50 members to safeguard against possible private ownership by imposing restrictions on membership and share trading. Only farmers and other stakeholders involved in agriculture and located within a particular geographical region can become shareholders and shares may also be traded only among eligible farmers. In addition, the maximum number of shares a farmer can own is limited to 10% of shares issued at any point of time according to the relevant provision of the Act. These companies were organized by government agencies and membership ranged from 200-2200 each and they were involved in different activities like input supply, procurement, marketing etc.

In summary, in some countries like Denmark, transfer of surplus to the reserves is not taxed. In New Zealand, shares have been linked to produce supplied. Yet, share does not form the main source of finance. Besides retention from surplus which is tax free access to Dairy Industry Loan Council (DILC) helps meet financial needs. It raises fund from public through bonds and loan. Similarly, in Australia, it is tax laws that distinguish between CC and public company. If the organization conforms to provision of CCs as given, then in the tax laws, its surplus is taxed after dividend or passing on the price differential; if it does not confirm to it, then it is taxed at the rate of 46% before the dividend.





CHAPTER 4

ELEMENTS OF AGRI-MARKETING POLICY FOR FPOs

Highlights

This chapter considers the important elements of agri marketing policy for FPCs.

Basically, the agricultural marketing scenario in the state of Maharashtra has undergone a sea change over the past few years, owing to increase in the quantity and variety of commodities produced, marketable surpluses, changing consumption pattern in society and globalized value chain. Therefore, the framework under which markets for agricultural produce function in Maharashtra and the factors that influence farmer or producer prices and value accruals have also changed.

It is necessary to therefore adopt a policy for agricultural marketing in Maharashtra that would provide an impetus for growth of the agrarian sector even while contributing towards farmer livelihood.

An enabling legislative environment, investment in infrastructure and well operated markets spread across the state is necessary. An efficient agricultural marketing system has to be evolved both in terms of infrastructure facilities (hardware) and on-going practices (software).

Basically, policy need address problems plaguing the sector, namely, small land holdings and the consequent small marketable surplus available per farm, managing seasonal supply and heavy arrivals of farm products during harvest to meet the perennial demand throughout the year, need to physically move the commodity for accessing the market, considerable post-harvest losses, limited sources of formal sources of financing both for the farmer and other market participants, etc.

Moreover, policy need also seek to increase competition, facilitate better price realization to the farmer, encourage investments in warehousing infrastructure, assaying and grading facilities, post-harvest facilities etc.

The objective of such policy need include :

- Stakeholders in the chain
- Addressing the risks associated with clearing and settlement that arise in the course of marketing of produce by the farmer or subsequent buyer, through technology solutions or other appropriate means with linkages to financial institutions.
- Promoting primary value addition through aggregation, grading and packaging at the farm level through farmer FPOs/FPCs.
- Enhancing the skill levels of all stakeholders in the system through well designed capacity building intervention efforts for deriving benefits arising from primary value addition, modern practices adopted in storage, processing and market systems.
- Improving access to finance for all market participants

Some policy options may be viewed in terms of

- Promoting private markets
- Promoting technology in private and regulatory markets, e-auctions and dissemination of market arrivals and price information
- Increasing competition through simplifying licensing
- Laying down quality standards for agriculture products: Separate Agricultural produce market standards bureau to promote grading and standardisation of agricultural commodities
- Promoting investment in storage and logistic infrastructure
- Promoting FPOs to undertake aggregation and primary processing/storage activities
- Promoting well enforced contract farming policy, etc.

4.1. Introduction

4.1.1. Definition and scope of Agri-Marketing

The agricultural marketing scenario in the state of Maharashtra has undergone a sea change over the past few years, owing to increase in the quantity and variety of commodities produced, marketable surpluses, changing consumption pattern in society and globalized value chain. Therefore, the framework under which markets for agricultural produce function in Maharashtra and the factors that influence farmer or producer prices and value accruals, have also changed. It is necessary to therefore adopt a policy for agricultural marketing in Maharashtra that would provide an impetus for growth of the agrarian sector even while contributing towards farmer livelihood.

An enabling legislative environment, investment in infrastructure and well operated markets spread across the state is necessary. An efficient agricultural marketing system has to be evolved both in terms of infrastructure facilities (hardware) and on-going practices (software). Basically, policy need address problems plaguing the sector, namely, small land holdings and the consequent small marketable surplus available per farm, managing seasonal supply and heavy arrivals of farm products during harvest to meet the perennial demand throughout the year, need to physically move the commodity for accessing the market, considerable post-harvest losses, limited sources of formal sources of financing both for the farmer and other market participants, etc.

Moreover, policy need also seek to increase competition, facilitate better price realization to the farmer, to encourage investments in warehousing infrastructure, assaying and grading facilities, post-harvest facilities etc., and make this sector an attractive one for generating employment in rural areas for equitable growth of the state. Therefore, an ideal policy document presents a policy framework for Maharashtra State which is farmer friendly and helps create vibrant market structures.

4.1.2. Overall objectives of the policy

The overall objectives of policy may be viewed in terms of: Creating a market structure that is transparent and equitable, distinguishes quality and variety, disseminates relevant market information to all market participants, provides easy access to all participants and ensures fair returns to all stakeholders. The seller will have greater choice to decide the time, place and avenue of sale.

- Facilitating reduction in and/or elimination of barriers to participation in markets to foster competition and efficient determination of price, linking the primary market in the state to the national market for the benefit of all stakeholders in the chain.

- Addressing the risks associated with clearing and settlement that arise in the course of marketing of produce by the farmer or subsequent buyer, through technology solutions or other appropriate means with linkages to financial institutions.
- Promoting primary value addition through aggregation, grading and packaging at the farm level through farmer FPOs/FPCs.
- Enhancing the skill levels of all stakeholders in the system through well designed capacity building intervention efforts for deriving benefits arising from primary value addition, modern practices adopted in storage, processing and market systems.
- Improving access to finance for all market participants

In pursuit of the above objectives, the key initiatives of the Government need encompass developing maximum transparency in price determination—efficiently linking various markets; increasing competition in auction through further liberalising licensing;

Model APLM Act, 2017

The model Agriculture Produce & Livestock Marketing (Promotion & Facilities) (APLM) Act 2017 has several features: the abolition of fragmentation of the market within a state or union territory concept of notified market area and consideration of a state or UT as a single market; full democratization of Market Committee and State/UT Marketing Board; Disintermediation of food supply chain by integration of farmers with processors, exporters, bulk retailers and consumers; Creation of a conducive environment for setting up and operating private wholesale market yards; Promotion of direct interface between farmers and processor/ exporters/ bulk buyers/ end users so as to reduce the price spread bringing advantage to both the producers and the consumers; Enabling declaration of warehouse/ silos/ cold storages and other structures/ space as market sub-yard to provide better market access/ linkages to the farmers; Giving freedom to agriculturalists to sell their produce to the buyers and at the place and time of their choice, to whom so ever and wherever they get better prices; Promotion of e-trading to enhance transparency in trade operations and integrating of markets across geographies; Provisions for single point levy of market fee across the state and unified single trading licence to realise cost-effective transactions; Promotions of national market for agriculture produce through provisioning of inter-state trading licence, grading and standardization & quality certification; Rationalization of market fee and commission charges; Provision of Special Commodity Market Yards and Market yard of National Importance(MNI); etc.

4.1.3. Some necessary policy options may be broadly viewed as follows

1. Regulated markets ^(xix)

- Markets is currently operating across the state would completely adopt technology for facilitating a comprehensive electronic auction system for transparent price determination.
- A state wide networked virtual market would be established by networking regulated markets, warehouses and cold stores.
- Total APMC in Maharashtra are 307 as on 2017-18
 - (i) 'A' Class-142 – Above Rs. 1 Crore
 - (ii) 'B' Class-69 – Above Rs. 50 Lakh to 1 Crore
 - (iii) 'C' Class-43 - Above Rs. 25 Lakh to 50 Lakh
 - (iv) 'D' Class-53 - Less than Rs. 25 Lakh

- There are 598 sub market yards
 - Terminal markets in Maharashtra are Thane, Nashik and Nagpur
- 2. Total 85 APMCs have been selected under a digital transaction eNAM**
- 60 from MSAMB and 25 from MACP, likewise 85 APMCs under eNAM process.

Current Scenario in Maharashtra

Till 2010-11, the total regulated market control was 880, which is 12.14 % of India's total regulated market.

- 3. Increasing Competition in Auction and efficient licensing ^(xx)**
- While licensing procedures have been simplified and a single unified license made applicable for participants, measures to increase participation and competition in the auction of agricultural produce will be explored.
 - Administrative processes with regard to license would be simplified and automated for improved efficiency.
 - In 2017-18, total private market are 48 and total DML issue from Directorate and Marketing are 876
 - Total single license issued are 46

Current Scenario in Maharashtra

Out of 60 APMC in Maharashtra, 30 have switched to digital transactions and have begun e-auctions. These 30 APMCs were part of the first phase of Union Agri Ministry Promoted eNAM.

Private markets and Farmer Common Service Centres (FCSCs) ^(xxi)

- Private markets will be encouraged as alternate market channel to increase competition and efficiency in marketing of agricultural produce while being part of the networked market.
- Farmers and other participants would have the choice to offer/ sell in any regulated or private market in the state.
- The FCSCs setup by FPOs/FPCs will also be encouraged to serve as private markets with some relaxations in infrastructure requirement and licensing costs.

Current Scenario in Maharashtra

Till 2016, there were 32 private markets operated in Maharashtra. About 200 DMLs are issued and active DML buyers include the Tatas, Aditya Birla, Reliance, Big Bazaar, ITC, ADM Agro, etc.

- 4. Quality and compliance standards for demand creation**
- Initiate steps for laying down quality standards for various agricultural commodities and for creating infrastructure for sampling and assaying the produce in markets, warehouses and cold storages to facilitate quality based trading of the produce.
 - Undertake capacity building programmes to create awareness on quality and compliance (e.g. traceability) standards amongst various participants and its importance for creating demand in the domestic, regional and international markets.

The major commodities traded in Maharashtra are Tur, Chana, Soybean, Maize, Wheat, Paddy, etc. Quality specifications of few of the major commodities are given below:

Table 3 : Quality parameters of commodities as per NCDEX norms

Sr.No	Parameters	Soy Bean	Maize	Chana	Wheat	Bajra
1	Moisture	10%	14%	11%	11%	13%
2	Foreign Matter	2%	2%	1%	1%	1%

3	Damaged	2%	3%	4%	2%	2%
4	Infestation Damaged				1%	
5	Green Seed/ Immature Seeds	7%		4%		3%
6	Broken		3%	3%	5%	
7	Weevilled grains		1%	1%		
8	Fungus		1%			
9	Varietal admixture			3%	2%	2%
Quality Variation		± 2%	± 4%	± 5%	± 5%	± 2%

Source - NCDEX Trading Standards

Table 4 : Quality parameters of Turmeric as per NCDEX norms

Sr.	Parameters	Unpolished Turmeric Fingers	Good Turmeric	Fair Turmeric
1	Inferior Quality	2.25%		
2	Length			
	Broken Fingers < 15 mm	3%	5%	7%
	Fingers > 3 cm	75%		
3	Damaged by moisture/ over boiling	1.20%	3%	5%
4	Un-boiled	0.30%		
6	Foreign Matter	0.75%	1%	1.50%
7	Bulbs	3%	4%	5%
8	Moisture	12%	10%	0
Quality Variation		± 2%		

*Source - NCDEX Trading Standards

Table 5 : Quality parameters of commodities as per Agmarknet norms

Particulars	Soybean Grade I	Soybean Grade II	Soybean Grade III	Maize Grade I	Maize Grade II	Maize Grade III
Moisture content percent by weight	10%	12%	12%	12%	12%	14%
Oil content on dry basis percent by weight	20%	18%	15%	-	-	-
Damaged, discoloured, insect infested beans percent by weight	1%	2%	3%	1%	2%	3%
Immature Shrivelled beans percent by weight	2%	3%	5%	2%	4%	6%
Splits broken, cracked beans percent by weight	5%	10%	20%	0%	0	0
Inorganic Foreign matter percent by weight	0.50%	0.50%	0.50%	Nil	0.10%	0.25%
Organic foreign matter percent by weight	0.50%	0.50%	1.50%	0.10%	0.25%	0.50%

Particulars	Chana Grade I	Chana Grade II	Chana Grade III	Wheat Grade I	Wheat Grade II	Wheat Grade III	Bajra Grade I
Moisture content percent by weight	0	0	0	0	0	0	14%
Oil content on dry basis percent by weight	-	-	-	-	-	-	-
Damaged, discoloured, insect infested beans percent by weight	1%	2%	4%	1%	3%	6%	1.50%

Immature Shrivelled beans per cent by weight	-	-	-	2%	4%	10%	4%
Splits broken, cracked beans per cent by weight	3%	5%	10%	1%	2%	4%	
Inorganic Foreign matter percent by weight	1%		4%	1%	2%	3%	1%
Organic foreign matter percent by weight	-	-	-	-	-	-	-

5. Empowering Farmers/Producers

- Organize farmer groups to initiate primary value addition and local aggregation, to enhance the bargaining power of farmers and improve price realization and by encouraging direct marketing/ sourcing of agricultural produce from farmers to forward integrated stakeholders.
- To provide alternate and safe storage options through encouraging accreditation of warehouses and encourage warehouse based sales. Also, facilitate farmers to avail pledge loans to avoid distress sale during periods of glut.
- Effective dissemination of market price information ensuring farmers are aware of prices in different markets
- Simplified processes and online timely payment to the farmers account
- Enabling the farmer to decide time and price of sale

6. Market development

- Facilitate the development of an efficient and effective agricultural marketing information system and establish a reliable information dissemination system.
- Establish linkages with secondary markets in important commodities to participants in the state, encouraging producer companies and aggregation of farmer produce to promote alternate and direct market access.
- Financial institutions will be encouraged to facilitate seamless clearing and settlement mechanism as well as facilitate pledge loans to farmers and other market participants.
- Appropriate procedures need be put in place for timely resolution of trade related disputes with Commission Agents/ Assayers or any other market participants.

7. Contract Farming ^(xxii)

- Promote contract farming in the state and have a single point for registering contract-farming sponsors with procedures for timely settlement of disputes by the registering authority independent of market committees
- Reduce barriers in terms of requirement of high deposit amounts by contractors etc.

Procedure and form of Contract Farming Agreement as per APMC Act, Maharashtra

(1) Contract Farming Sponsor shall register himself with the Market Committee or with the prescribed officer, in such manner as may be prescribed. Act_1963 24 (2) The contract Farming Sponsor shall get the Contract Farming Agreement recorded with the officer prescribed in this behalf. The Contract Farming Agreement shall be in such form containing such particulars and terms and conditions, as may be prescribed. (3) Notwithstanding anything contained in the Contract Farming Agreement or the Indian Contract Act, 1872 or any other law for the time being in force, no title, or rights in or any other law for the time being in force, no title, or rights in or, ownership or possession of agricultural land of the Contract Farming Producer shall be transferred, alien-

ated or vested in the Contract Farming Sponsor or his successor or his agent. (4) Dispute arising out of any Contract Farming Agreement may be referred to a settlement authority, as may be prescribed in this behalf. The settlement authority shall resolve the dispute in a summary manner within thirty days, after giving the parties a reasonable opportunity of being heard. (5) The party aggrieved by the decision of the settlement authority under sub-section (4) may prefer an appeal to the Appellate Authority as may be prescribed in this behalf, within thirty days from the date of the decision. The Appellate Authority shall dispose of the appeal within thirty days, after giving the parties a reasonable opportunity of being heard and the decision of the Appellate Authority shall be final. (6) The decision of the settlement authority under sub-section (4) and the decision of the Appellate Authority in appeal under sub-section (5), shall have force of the decree of a Civil Court and shall be enforceable as such and the decretal amount shall be recovered as an arrears of land revenue. (7) Dispute relating to and arising out of a Contract Farming Agreement shall not be entitled to be called in question in any court of law. Act_1963 25 (8) The agricultural produce covered under the Contract Farming Agreement may be sold to the Contract Farming Sponsor outside the market yard and in such a case, no market fee shall be leviable.

8. Infrastructure (post-harvest and marketing)

- Develop important and strategic agricultural marketing infrastructure.

Establish enabling and conducive environment for the private sector and other stakeholders' investment in agricultural marketing infrastructures by encouraging set up of warehousing and logistic parks in each of the districts to function as marketing hubs and be part of the state wide marketing network, with appropriate incentives.

9. Regulatory and legislative environment

- The State Act would be reviewed to facilitate the aforesaid policy objectives and initiatives and to create a distinct, level playing regulatory environment for the transparent and efficient functioning of agricultural markets in the state.

In summary, an ideal marketing policy may have an objective to create a market structure that is transparent and distinguishes quality, variety, disseminates market information to all participants, ensures fair returns to all and offers producers choice of time, place and terms of sale. Such a policy may also encourage primary value addition through aggregation, primary processing at farmer level through FPOs, improvement in access to finance, encouraging investment in infrastructure, developing institutions like FPOs to improve farmer livelihood etc.

In summary, some of the focus initiatives may include: ^(xxiii)

- Promoting private markets
- Promoting technology in private and regulatory markets, e-auctions and dissemination of market arrivals and price information
- Increasing competition through simplifying licensing
- Laying down quality standards for agriculture products. Maharashtra will implement a separate Agricultural produce market standards bureau to promote grading and standardisation of agricultural commodities
- Promoting investment in storage and logistic infrastructure
- Promoting FPOs to undertake aggregation and primary processing/storage activities
- Promoting well enforced contract farming policy
- Leveraging soft loans from WB/ADB for intensification/diversification of market led production, enabling farmers' access to markets and for establishing aggregation, primary processing, storage market intelligence and distribution facilities to strengthen value chains.

- Agricultural pledge loan to farmers- Through AMPCs to stock in godowns of AMPCs for up to 180 days at rate of interest of 6% and to an extent of 50-75% of value of produce in the market. This is to help farmers avoid distress sale during periods of glut in the market and even higher prices when sold.
- Cold storage investment subsidy- for horticulture produce with subsidy up to 25% of market cost for 100 MT cold stores with limit of 2.5 Lakh per cold stores. The government has also established terminal markets in towns and cities to reduce post-harvest losses in horticulture products and provide farmers/FPOs/Firms links to consuming areas. Collection centres in production areas.
- Terminal markets to include electronic auctioning facilities, pre cooling, cold storage, ripening chambers, grading and packaging facilities and processing units and support banking and other facilities.
- Provide common facilities to FPCs- To facilitate aggregation and primary process for FPOs.

4.2. Agri Marketing Scenario in Maharashtra

The Maharashtra Agricultural Produce Marketing (Development and Regulation) Act, 1963 has allowed the setting up of the Maharashtra State Agriculture Marketing Board (MSAMB) and permits private markets to be set up in the State along with direct procurement from the farmers. However, limited provision for contract farming has been granted yet. The Act also promotes Public-Private Partnerships in financing, construction, operation and management of agricultural markets. A single market fee is levied in the state with exemptions on Direct Marketing and Processing. Further, no market fee is leviable on the sale or purchase of the agricultural produce in the farmer – consumer markets. Any trader in the State desiring to operate in more than one market may apply for grant or renewal of licence.

The Maharashtra Agricultural Produce Marketing (Development and Regulation) Act was passed in the year 1963, with a view to regulate the marketing of agricultural and pisciculture produce in market areas. After giving due consideration to recommendations of various committees and study groups, some important changes have been made in this Act in the year 1987 and thereafter. Agriculture produce means all produce (whether processed or not) of agriculture, horticulture, animal husbandry, pisciculture and forests as specified in the schedule.

4.3. Objectives of Policy

The overall objective of policy is to create a market structure that is transparent and equitable, disseminates market infrastructure quality and variety and ensures fair returns to all stakeholders. The seller particularly producer- farmers should have the choice to decide the time, place and a venue of sale.

- Policy should also strive to eliminate barriers to participation in markets, increase competition and price discovery mechanisms.
- It should strive to link the primary market in the state to the National and global market for the benefit of all stakeholder.
- Policy should foster primary value addition through aggregation, grading and packaging at the farm level through FPOs/FPCs.
- It should encourage awareness and adherence to quality stakeholder for better price realisation.
- Further, adoption of modern practices in storage, presentation of commodities, encourage investment in infrastructure for market access
- Reduce the risks in clearing and settlement in marketing of produce through technology and financial solutions.
- Policy should also encourage investment in post-harvest and processing infrastructure adapting and leveraging on technology.

The State Government has been already undertaking several initiatives with regards to agricultural marketing. For the development of food processing industry, the State government may pursue cluster development approach, based on the production strengths of respective geographic locations. Market-oriented and high value crops may be used on. Further to promote food processing industries, development of Mega Food Parks (with appropriate enabling infrastructure) could be Pursued. Such Food Parks would offer a 'Plug and Pay' environment to processors. This would minimize the risks and improve the profitability of individual units. All relevant government departments viz. Animal Husbandry, Irrigation, Industries and Commerce and Marketing shall coordinate with the State Food Processing Department, and make concrete effort in developing these clusters across the value chain. The State Agriculture Department could also pursue development of the food processing clusters with the help of Ministry of Micro, Small and Medium enterprises.

The state government has made suitable amendments to the APMC Act facilitating direct purchase of agricultural produce from producer farmers, Private Market single license e-trading and contract farming. To promote the food processing industry in the state for leasing the farmers land for long term commercial basis, necessary amendment in the act is being made. Amendments to the section 42 of the Maharashtra Land Revenue Code, 1956 could be made wherein permission of land use for non-agriculture purpose will not be required for micro, small and medium food processing industries.

To support expansion of the food processing sector, logistics infrastructure such as facilities for grading, packing, pre-cooling, food processing units, logistics park, integrated cold chain solutions, last mile connectivity, customized transportation, technology adoption like barcoding, radio frequency identification (RFIDs) tags, on farm and off farm end retail infrastructure will be developed in planned manner with the help of Private Sector. To promote Food Processing trade in the logistics sector should be encouraged. Besides, dedicated cargo hubs at the port and the railway of each state for storage of perishables will be set-up. The state will support cross regional multimodal logistics as this would make inter-state and international markets accessible to food business. This is expected to reduce transportation cost and enhance efficiency of the entire logistics network of the country thereby enhancing farmer incomes and also ensuring better price to consumers.

Labour laws need be amended to introduce presumption that food processing industries fall under category of seasonal industry unless Labour Department in consultation with the Agriculture Department may decide the same to be non-seasonal based on facts of the case.

The actual charge for the food processing industry and its related cold chain projects (including Minus Temperature electric charges) may be applied on actual cost (At Cost) up to year 2020. Similarly, concession to electricity tariff, electricity duty and cess as made available to the industries in Marathwada, Vidharbha and North Maharashtra (D and D* zones) regions, will also be extended to food processing and fruit processing industries established in Konkan region. Environment Department's Pre-sanction will not be required for those Agri/Food processing units which do not discharge effluent. Also, 50% of the subsidy will be provided for obtaining industry recognized skill certifications from recognized institutions to Agro and Food Processing units/infrastructure projects.

The Chief Minister's Food Processing Scheme has been launched during the year 2017-18 as a State Level Scheme. Under this, capital subsidy of 30% of the cost of project comprising of technical civil work and plant and machinery, storage structure etc. is admissible with a ceiling of Rs. 50.00 Lakh.

4.4. Salient Features of Advocacy Options

The important advocacy options have their underpinnings or National and global best practices and circumstance. They cover a range of advocacy options ranging from fiscal incentives to input and emerging FPOs and FPCs regard-

less of their legal constitution to operational aspect. The advocacy options cover aspects such as facilitating development of alternate market access, handholding and capacity building support, contract farming etc.

4.5. Policy Advocacy Options

Advocacy options that may be proposed to the Centre

The advocacy options that may be proposed to the Centre are basically fiscal issues which are under the mandate of the Central Government.

1. Exemption from levy of income tax on profits accrued to FPOs or FPCs and used for FPO or FPCs expansion/ development purposes but not declared as dividend.

Experiences from countries across the world ranging from Denmark and New Zealand to Australia indicate at least reserves accumulated for further development of FPCs are not subject to tax. Dividends alone, if distributed, are taxed in some countries. (The GOI has recently decided to exempt FPCs from income tax for a period of 5 years.)

2. GST exemption on input and output for FPOs/ FPCs (for a period of 5 years from date of implementation of policy/ date of registration of FPO). FPOs/ FPCs dealing in input facilitation may be exempted from GST.

FPOs/FPCs are basically an aggregation of farmers and hence same relaxations needs to apply.

Advocacy options that may be proposed to the State

The advocacy options that may be proposed to the State are largely those related to contract and corporate farming, licensing, private market yards etc.

1. FPCs may enjoy the same benefits offered to cooperative societies as per the state's policy and schemes.

FPCs are basically a development over the co-operative systems framework, and a concept introduced by the GoI to redress limitations in the co-operative framework in terms of non- democratic management, interference from the government, limited adoption of professional management practices etc. The constituents are the same producers and change is only in terms of legal constitution for greater efficiency, sustainability and empowerment.

2. FPCs may be given the same treatment as “farmers” so as to encourage linkages between processors and farmers as this will enable processors to take advantage of market fee exemption (and also exemption from GST and IT.)

FPOs/FPCs are basically an aggregation of farmers and must be treated as such.

3. Government support in the form of grant-in-aid on capital expenditure for start-up and expansion stages of a FPC may be made available to a greater degree. This is for the establishment of common facilities for storage, primary/ secondary processing, transport connectivity etc. An appropriate PPP scheme needs to be evolved akin to the “Kisan Sampada Yojana-Scheme for forward and backward linkages”, which has been introduced by the MoFPI.

Presently funding support for FCSCs (Farmer Common Service Centre) is offered only under the World Bank supported MACP and the MOFPI supported scheme. The need for common facilities for primary/ secondary processing has been validated under the MACP as a basic necessity to help producers develop alternate markets and avoid exclusive dependence on APMCs and local traders.

4. Storage Subsidy- Access to storage infrastructure such as accredited warehouses to FPOs and FPCs at concessional rate similar to what is made available to farmers in many states.

FPOs basically undertake an extension of farmers' activity, that is often into primary processing and hence may be offered the same support offered to individual farmers.

5. Processors directly sourcing from FPOs/FPCs may receive support under various GoI schemes or priority basis to insist in post-harvest and supply chain development by incentivising and prioritising through schemes of assistance of the state government.

Given the fragmented nature of holdings and minimum scale required to upgrade as well as reap scale economies in production as well as primary processing, FPOs/FPCs are the only feasible option. This concept needs to be encouraged by upstream processors too and an incentive mechanism to encourage the same is an option to be considered.

6. The state government may encourage the formation of joint-stock companies FPOs/FPCs and upstream processors/retailers/fair trade organisation etc.

Experiences from countries across the world ranging from those in Europe to Africa indicate that many global retailers prefer this route. This is because it reduces their risk in investing in upgrading of FPO/FPCs activity and strengthening infrastructure through investment in more efficient backward integration.

7. State to seriously consider establishment of an Agri Business Promotion Facility (ABPF) comprising a team of dedicated expert professionals to operate at the state level in a sustained manner to ensure and provide business development services (BDS) to FPCs on various fronts.

This is because, apparently, typical resource institutions and NGOs involved in mobilization activities suffer from capability limitations on fronts such as business planning for FPOs and providing a range of incubation and BDS. The role of an ABPF may be viewed in terms of:

- Training service providers like NGOs on Business plan preparation and providing incubation services to FPCs
- Guiding preparation of business plans of FPCs
- Conducting detailed value chain analysis of commodity value chains, identifying areas for interventions to strengthen/upgrade the chain in a “producer-friendly” fashion
- Providing incubation services in terms of evolving FPOs to serve as input facilitators (and dealers) for seeds, fertilizers and pesticides, evolving direct B2B links with marketers and processors, ensuring that FPOs meet statutory compliance requirements, twinning FPOs with apt government schemes of assistance (such as the SFAC or the MoFPI scheme for forward and backward integration) etc.
- Organizing workshops and seminars on areas of interest to FPCs (technology seminars, B2B meets, input providers, seminars etc.)
- Providing training on entrepreneurship and management to BODs of FPCs
- Promoting start-ups from amongst FPCs members for secondary/tertiary processing, organizing start-up meets, bankers meets in this regard
- Facilitating WC/TL credit linkages for FPCs
- Enabling FPCs to establish common facilities for primary/secondary processing
- Enabling FPCs to undertake seed production activity
- Enabling FPCs to undertake MSP related activity
- Enabling FPCs to undertake NCDEX related activity to reduce market risk

NGOs typically lack the professional manpower required to offer the range of incubation services required by FPOs/FPCs. They are typically O.K., at best, till mobilisation stage and rarely beyond. India has at least 3000-4000 such

FPOs/FPCs who have not been guided to undertake activities other than (in case of a small proportion) input facilitation services.

- 8. Contract Farming (Registering and redressal) ideally should not be the district level market committee. There is need for a district and special committee/ dispute redressal tribunal to consider possible cases.**
Market committee which co-ordinates functioning of the APMCs may have an obvious “conflict of interest”. A distinct state-wide dispute redressal tribunal/committee will encourage contract farming practices.
- 9. Market fee and direct procurement from farmers/ FPOs: There is scope to reduce or eliminate market fee.**
When APMCs are not involved in a transaction why is there a need to pay any fee on the basis of Rs. 100 transacted?
- 10. Corporate Farming: Evolve a land lease policy whereby large corporate can independently undertake production on land from farmers for a period of up to 15 years.**
The present land lease policy which in itself exists in very few states, allows for land lease of only up to 5 years. Some states allow for land lease of only up to 5 years which may not encourage investment in necessary farm infrastructure by corporates until reasonable gestation time is given for returns.
- 11. Contract Farming: Agreement may be written on stamp paper of Rs. 100 and any number of individual farmers may sign on one agreement**
The option of entering into agreements with farmers individually as is the requirement in some other states is time consuming and costly. It is also non-practical since many farmers do not plan sowing in advance. Also, when they do plan, seed sale is in very short time of 15 to 30 days. One can imagine the logistics and cost implication to cover 20000-25000 farmers or more every season.
- 12. The contracted price shall be at least equal to the minimum support or the model price, for the contracted agricultural produce during the present harvest season.**
Not in the previous “harvest season”, as in some other states in the market committee concerned.
- 13. Contract Farming: No security deposit or bank guarantee will be required from processors/retailers.**
A contract farming agreement is one between two parties. One of them alone cannot be charged a deposit or bank guarantee of even 20 per cent or more as in some states as a significant part of their business finance and working capital may be blocked – discouraging contract farming practices in the state.
- 14. It is not feasible for FCSCs to have all necessary infrastructure nor offer necessary high fees (of even Rs. 25 Lakh in many cases). FPOs/FPCs not to furnish any undertaking or security deposit.**
Resource scarce FPOs can hardly meet such requirements.
- 15. Bankers may be encouraged to consider FPO fund request for term loan or working capital under CGT-MSE to the extent flexible. The State government will also strive to utilise a separate corpus fund serve as guarantee against such lending.**
Many FCSCs are located on lease-rental based land and have few assets which can be offered as valid collateral but for machinery and buildings which are typically not acceptable as collateral by most financial institutions.
- 16. Bankers will be encouraged to consider “rural” land also as valid collateral.**
Many FCSC are located in rural and not “urban” land. Hence, it is difficult for such land to be offered as collateral to banks.
- 17. Targets will be offered at the District level to the District Level Institutional Committee to finance at least 3 FPOs per district per annum.**

Typically, the financial statements and age of many FPOs/FPCs are not adequate to be actively financed by banks.

- 18. Financial institutions will be encouraged to avoid according weightage to Net Worth of Directors of FPCs during the loan appraisal. The track record of FPC and business plan will be accorded due weightage.**

The net worth of BODs of FPCs are usually low and should not be unfairly used as basis for assessing loan potential of an FCSC which, in most cases may involve 100s of marginal farmers.

- 19. Need to lower the start-up authorised capital from Rs. One Lakh to Rs. 10,000, tax exemption to FPCs for a few years.**

FPC Mobilisation is made more difficult with higher minimum capital base

- 20. FPO/FPCs will be accorded priority in the allocation of Udyog Aadhar by the DIC. Targets akin to PMEGP targets will be accorded at the District level.**

This will help FPO/FPCs avail of State government incentive schemes in terms of power and for investment/ interest subsidies/stamp duty waiver etc.

- 21. Skill training institutions and programmes in the State will give priority to FPO/FPC representatives while selecting candidates for various EDP and ESDP and MDP programmes.**

Capacity building of BODs and more active FPO/FPC members is critical if typical FPO/FPCs are to successfully undertake even primary processing or upgrade to secondary processing.



SECTION - II

SOFT SKILL INPUTS : INTRAPRENEURSHIP (ENTREPRENEURIAL -MANAGEMENT)





CHAPTER 1

SOFT SKILLS FOR LAUNCHING AND MANAGING AN ENTERPRISE

Highlights

This chapter highlights the importance of soft skills in launching and managing an FPC and the process of developing them.

Entrepreneurial and management skills may be referred to as hard management skills and soft (entrepreneurial or intrapreneurial) skills respectively. A Director needs to act as an “intrapreneur” or an “entrepreneurial-manager” within an FPC.

Hard skills have reference to techno-managerial skills.

Soft skills have more to do with the personality and internal behavioural traits and characteristics of an intrapreneurial manager or Director.

An “intrapreneur” much like an entrepreneur is a planned risk taker who effectively organizes different factors of production.

Some key soft skill attributes that may be attributed to successful Directors of FPCs are:

- Persistence
- Initiative
- Commitment to Work Contract
- Efficiency Orientation Etc.

Soft skills may be imbibed and developed. The skill acquisition process comprises of various steps. These are:

- Understanding
- Practicing
- Improving

1.1. Introduction

This chapter highlights the importance of soft skills in launching and managing an FPC and the process of developing them.

A successful Director of an FPC typically needs to have several intrapreneurial skills that help him in establishing and operating successfully. Such entrepreneurial and management skills may be referred to as hard management skills and soft (entrepreneurial or intrapreneurial) skills. A Director needs to act as an “intrapreneur” or an “entrepreneurial-manager” within an FPC.

Hard skills have reference to techno-managerial skills.

Soft skills have more to do with the personality and internal behavioural traits and characteristics of an intrapreneurial manager or Director. Soft skills help to evolve and implement solutions related to different aspects of start-up and management.

An “intrapreneur” much like an entrepreneur is an entrepreneurial- manager or director. Such an intrapreneur is a planned risk taker who effectively organizes different factors of production. Such individuals are driven by tasks, challenges and opportunities and possess a high level of achievement orientation. They are endowed with or need to develop a range of qualities including need for achievement, perseverance, risk taking, systematic planning etc.

1.2. An inventory of soft skills

The following is a list of some key soft skill attributes that may be attributed to successful Directors of FPCs:

- Persistence: Steadfastly pursues targets
- Initiative: Does not wait to be asked or guided to pursue every small activity related to completing a task
- Seeing and Acting on Opportunities: Exploits emerging opportunities to the fullest. Many may be unexpected.
- Information Seeking: Exploits personal/professional networks, consults support institutions and other sources to secure information; Strives to secure maximum information on an activity/option before attempting to pursue it
- Concern for Work Quality: Displays great concern for quality in every activity/task; Strives to outdo others in initiatives. Continuously benchmarks own initiatives/output with competitors.
- Commitment to Work Contract: In order to complete a task and satisfy customers as promised makes personal sacrifices of time and money. She/he continuously strives to satisfy customers.
- Efficiency Orientation: Strives to accomplish tasks more efficiently – optimize resources in terms of time and money etc.
- Systematic Planning: Strives to plan efficiently-breaks up larger tasks into small tasks and pursue appropriate steps to complete them; Plans for possible unfavourable exigencies
- Problem Solving: Explore innovative solutions to problems; keep alternative strategies in hand.
- Self-Confidence: Display a high degree of self confidence in abilities and in accomplishing a task
- Assertiveness: Attempts to assume leadership when working in a group; does not go under group/peer pressure unless truly convinced
- Persuasion: Competent at motivating and convincing others of own point of view (or to buy a service/product!)
- Employment of Influence Strategies: Employ a mix of strategies to influence others - networking, employ/influence appropriate/influential persons to realize their targets etc.

1.3. Some of the more critical traits

In the context of these competencies some of the more critical soft skill traits are:

1) A Need for Achievement (N-Ach)

Many dream of great achievements, but few work intensively to achieve. Successful intrapreneurs however, have a strong desire to continuously reach new heights and goals and will not rest till they are realized.

2) They Prefer Working Independently

Such intrapreneurs prefer to work on their own and `be their own boss.’

3) They can Undergo Intense Stress in Pursuit of Their Goals

Such “intrapreneurial” Directors and members of an FPC can work untiringly and with passion for long hours continuously tackling a multitude of problems with calm fortitude. Work may involve intense physical and emotional stress.

1.4. No substitute for Skills

The importance and relevance of these skills, both to establish and manage FPCs is evident.

Consider start-up or expansion of an FPC: Even after identifying a promising opportunity, one needs to gather information to evaluate the opportunity. One need to efficiently seek information, communication and networking skills are critical. An intrapreneur need display strong negotiating skills to secure appropriate finance from different sources or develop direct market linkages.

Consider management of an FPC: An array of soft skills is required to successfully manage an FPC. Planning and leadership skills are critical as are problem-solving skills etc. Many of these soft skills may be cultivated.

1.5. Nature of Soft Skills

There are some distinguishing features of the soft skills, which are:

- These skills are interrelated and reinforcing.
- These skills are ‘imbibable’.
- They can be described in terms of ‘more or less’ than quantitatively.
-

1.6. Imbibing /nurturing skills

Soft skills may be imbibed and developed. The skill acquisition process comprises of various steps. These are:

- Understanding
- Practicing
- Improving

For Instance, many of these soft skills such as

- Effective Interpersonal Communication
- Persuasion and use of influence strategies
- Creativity and problem solving
- Negotiation and Networking
- Delegating of Authority and Work Effort
- Leadership skills
- Efficiency Orientation and Systematic Planning

...MAY BE DEVELOPED.

Most of the skills are inter-related. The following chapters consider these soft skill competencies in particular in a more elaborate fashion.





CHAPTER 2

INTERPERSONAL COMMUNICATION AND PERSUASION AND USE OF INFLUENCE STRATEGIES

Highlights

This chapter seeks to provide an understanding of the nature, types and importance of interpersonal communication. Hence, communication need be effective and appropriate.

Various persuasion and influence strategies needs to be employed for success in business.

Communication involves the transmission or exchange of information between at least two persons.

Effective communication, therefore, is when the recipient gets the message with minimal distortion in terms of deriving the right meaning. Effective communication is critical for effective business activities.

Business communication is planned and has a definite purpose such as providing information.

With reference to effective communication some major barriers are:

- Conveying different meanings to different people
- Inattentive or uninterested receiver
- Sending a confused signal to the receiver

Careful planning of the contents will make the message effective.

- Lack of trust or credibility can seriously distort the message.

A good communicator will always check and get feedback on how the receiver is receiving his/her message.

1.1. Introduction

Some important aspects include communication, persuasion and use of influence strategies:

- **Communication:** This chapter seeks to provide an understanding of the nature, types, and importance of interpersonal communication. Barriers to communication and steps for effective communication are elaborated upon. For instance, messages may be distorted because there was lack of clarity and the contents were not appropriate for the target audience (perhaps clients of an enterprise). Hence communication needs to be effective and appropriate.
- **Persuasion and use of influence strategies:** In addition to effective communication various persuasion and influence strategies also need to be employed by potential entrepreneurs. The success of a business will depend on intrapreneur initiatives within and outside his business premises. One can influence activities within a business but not easily with outsiders like bankers, term-lending institutions, and suppliers. However, she/he may employ different influencing tools where feasible/appropriate.

1.2. Effective communication

Communication involves the transmission or exchange of information between at least two persons. Communication involves

1. A Sender viz. a person who packages and sends his message in words/symbols, etc.
2. A Message viz. the information content
3. Transmission viz. sending message to the intended recipient
4. A Channel or medium of transmission
5. A Receiver viz. a person who will receive and interpret a message.

Effective Negotiation

Effective communication, therefore, is when the recipient gets the message with minimal distortion in terms of deriving the right meaning. Effective communication is critical for effective business activities.

1.2.1. Business Communication and its types

Business communication is planned and has a definite purpose such as providing information.

Communication may be:

- Verbal communication: via words/language,
- Non-verbal communication is done through facial expressions, gestures, body language, symbols, etc.
- Oral communication is spoken words.
- Written communication uses script.
- Bilateral communication is between two persons.
- Multilateral communication is between more than two persons.
- Horizontal communication is between persons at the same level in an organisation.
- Vertical communication is between persons at different levels in the organisation, like superiors and subordinates.
- Formal communication is official.
- Informal communication is personal.
- Periodic communication is done at a specified interval of time. Ad hoc communication is done as per exigency.

1.2.2. Barriers to effective communication

Some major barriers are:

One could convey different meanings to different people.

Another problem arises when the receiver has a bias against the sender or the contents of the message and, therefore, the receiver looks at the message in a different way.

The receiver may be inattentive or uninterested and, therefore, does not get the intended meaning.

The sender may not be clear in his mind and may send a confused signal to the receiver and the message may get distorted.

A Director must be aware of these barriers or obstructions and steer clear of them. This will save a lot of hard feelings and wasted efforts.

1.2.3. Guidelines for Effective Communication

The guidelines for effective communication have been derived from empirical experience. The practice of the following rules will be helpful.

- (i) Careful planning of the contents will make the message effective.
- (ii) A carefully crafted message will be more effective if proper techniques are used. Varying tone of the speech, changing the pitch, use of pauses, and supportive non-verbal gestures may enhance the effectiveness of communication.

- (iii) Lack of trust or credibility can seriously distort the message. Therefore, the sender has to address this problem.
- (iv) A good communicator will always check and get feedback on how the receiver is receiving his/her message. Feedback will help the sender to alter and modify the content or style to improve the efficacy of communication.

1.3. Persuasion and use of influence strategy

There are many influencing strategies available to an intrapreneur to persuade people to act in a required manner.

- Business potential
- Knowledge
- Relationship building
- Facilitate involvement
- Effective negotiation

Existing FPCs may use the lever of giving or withdrawing business to influence the behaviour. A potential /new intrapreneur in an FPC needs to convince others of the potential of the business. This needs three things: hard evidence on the potential, a credible action plan and evidence on competence of the intrapreneur. A well-drawn Business Plan may serve as an influence mechanism.

Knowledge/information on one's business, expertise in some aspects of the business serve as effective influencing strategy. Associating with experts (perhaps from support institutions etc.) can also help. Building relationship through networking is another tool of influencing. A known person is more likely to evoke a more favourable response. Involving people in what one is doing is another way in which one can influence others

In negotiation the methodology involves identifying basis of mutual benefit and then to appeal to it.

All these strategies use communication. Therefore, while using the entire gamut of skills, properly planned communication can be a powerful tool of influencing.

Illustration vis-à-vis C.P. Seeds to influence the farmers to enter Contract Farming:

Influencing farmers: C.P. Seeds

C. P. Seeds and MACP influenced a large number of farmers into coming under their ambit through requesting a few farmers linked earlier with them to present the benefit of association to the other farmers. As other farmers realised the increased output potential, they were motivated to enter into “contract farming” arrangement with C.P. Seeds.





CHAPTER 3

CREATIVITY AND PROBLEM SOLVING

Highlights

A critical competency of an intrapreneur is creativity and problem-solving attitude and skills.

An open mind and efforts help remove barriers hindering creativity within a person.

If an appropriate system, approach and methodology is developed to solve problems in an enterprise, it will help the intrapreneur to manage his/her affairs smoothly and he/she would not remain under stress while encountering problems.

A critical competency of an intrapreneur is creativity and problem-solving attitude and skills.

Many barriers develop due to certain pre-conceived ideas which impede the growth of creative thinking. The barriers are

1. Closed frame of mind (to new ideas etc.)
2. Avoiding challenges

An open mind and efforts help to remove barriers hindering creativity within a person.

In routine life, many problems are often not even noticed. This is because experiences have equipped us with spontaneous reactions that solve them. However, sometimes when we face an unusual or difficult problem, there is no routine reaction. In such cases, various approaches and ways have to be tried.

If an appropriate system, approach, and methodology is developed to solve problems in an enterprise, it will help the entrepreneur to manage his/her affairs smoothly and he/she would not remain under stress and tension while encountering problems.

The following steps are suggested for developing a problem-solving attitude and problem-solving mechanism:

- Build a Problem-solving Attitude
- Recognize the Problem and its seriousness, specify the problem
- Formulate Possible Causes
- Test and develop Alternative Solutions with relevant cost-benefits
- Compare and implement appropriate solution
- Internalize the process so that similar problems will be easily resolved.

Illustration vis-à-vis NCDEX to effectively communicate to the farmers to initiate Futures trade on NCDEX platform.

Fostering trust as an effective communication tool: NCDEX and FPCs

NCDEX officers along with GT offered training programs across Maharashtra. After training, they were guided to undertake trial trade. This developed trust and firm relationship building between FPCs and NCDEX. This served as an effective communication tool which is based upon building trust and relationship to forge mutually beneficial ties between NCDEX and FPCs.





CHAPTER 4

NEGOTIATION AND NETWORKING

Highlights

This chapter introduces participants to negotiating skills and provides guidelines for successful negotiation. The chapter also introduces the concept of networking and the approach to building a productive network.

Negotiation is a key activity in business.

Negotiation is a process of arriving at a mutually satisfying agreement/ understanding/position by different actors/parties having differing viewpoints initially- upon effective negotiation they reach an agreed position, which satisfies all.

Negotiation skills may be improved by:

- Cultivating empathy.
- Building trust.
- Cultivating the orientation that negotiation is a win-win situation.
- Employing all tools for effective communication.

Networking aims at building mutually beneficial relationships.

Networking has an accumulative tendency. After a while it grows by further association.

4.1. Introduction

This chapter introduces participants for negotiating skills and provides guidelines for successful negotiation. The chapter also introduces the concept of networking and the approach to build a productive network.

Negotiation may be with different actors - with employees, suppliers, and customers etc. The structuring of negotiation is also presented.

4.2. Negotiation

Negotiation is a key activity in business. One negotiates within an enterprise with employees, and outside with suppliers, customers, support institutions and financiers.

A successful intrapreneur is a successful negotiator. It is, therefore, imperative for an aspiring intrapreneur to develop negotiating skills.

Negotiation is a process of arriving at a mutually satisfying agreement/understanding/position by different actors/parties having differing viewpoints initially- upon effective negotiation they reach an agreed position, which satisfies all.

4.3. Features and objectives

Negotiation has several features:

- It involves reconciling conflicting/differing expectations.
- It involves effective communication.

Successful negotiation results in a win-win situation for all the parties. Main concerns of both the parties are addressed. Also efficient negotiation fosters a long term relationship between parties.

4.3.1. Process

The negotiation process involves:

- Preparation and presentation
- Bargaining
- Agreement and closure

Preparation entails deciding what one requires and what one is willing to offer. It will also include some assessment of the opposite party's needs, strengths and weaknesses.

Response of the other party should be studied while negotiating and appropriate modifications made in presentation.

The process of bargaining would help parties to arrive at a mutually acceptable position. This would be concluded in a manner that will foster long term relationship.

4.3.2. Improving Negotiating Skill

Negotiation skills may be improved by the following modes:

- Cultivate empathy
- Build trust
- Cultivate the orientation that negotiation is a win-win situation
- Employ all tools for effective communication

4.3.3. Networking

Networking aims at building mutually beneficial relationships. These relationships can be built proactively or they may be just cumulative.

Successful people have an extensive network built up assiduously. Networking helps in terms of information and opportunities.

4.3.4. Building up network involves several aspects

An extensive network is built up consciously. Selecting out of the casual contacts that appear to be useful may help.

Networking has an accumulative tendency. After a while it grows by further associations. It may be reinforced by offering help to others even when not requested.

The sources of network may be also a club, a business association etc.

Negotiation and evolution of a federation of FPCs

Sai Pravara FPC leaders have had several meetings with other 13 odd FPCs and negotiated the evolution of a federation of FPCs for joint-marketing of maize to buyers like C.P. Seeds. The Chairman of Sai Pravara harped on the need for increasing bargaining power through formation of a federation.





CHAPTER 5

DELEGATION OF AUTHORITY AND TASK

Highlights

This chapter introduces the concept and need for delegation and provides guidelines for effective delegation.

Delegation involves entrusting one's own tasks to one's subordinates. Delegation is not the assigning of task. It is entrusting the task that is allotted to oneself

Delegation consists only of entrusting the task of execution. The responsibility for the performance of the task remains with the person who has delegated.

Effective delegation requires clarity.

The delegation must also be accompanied by a clarification of performance parameters and the expected levels of performance.

Delegation will not be successful if the subordinate is left to fend for himself.

Since the task is delegated and the person is learning, it is necessary that initially the performance is closely monitored.

5.1. Introduction

This chapter introduces the concept and need for delegation and provides guidelines for effective delegation.

5.2. Delegation

Effectiveness of an entrepreneur will depend upon the level of performance of his employees or other.

Delegation involves entrusting one's own tasks to one's subordinates. Delegation is not the assigning of task. It is entrusting the task that is allotted to oneself.

Delegation consists only of entrusting the task of execution. The responsibility for the performance of the task remains with the person who has delegated.

Importance

Delegation contributes to improved performance in several ways:

- Delegation helps people operate at higher level with better efficiency.
- Delegation improves the self-image of the employees or other members of FPC and thus contributes to job satisfaction.
- Delegation, when successful, liberates the entrepreneurs from some tasks. This gives time to devote to more essential tasks.

Guidelines for Effective Delegation

The following suggestions would be helpful for effective delegation:

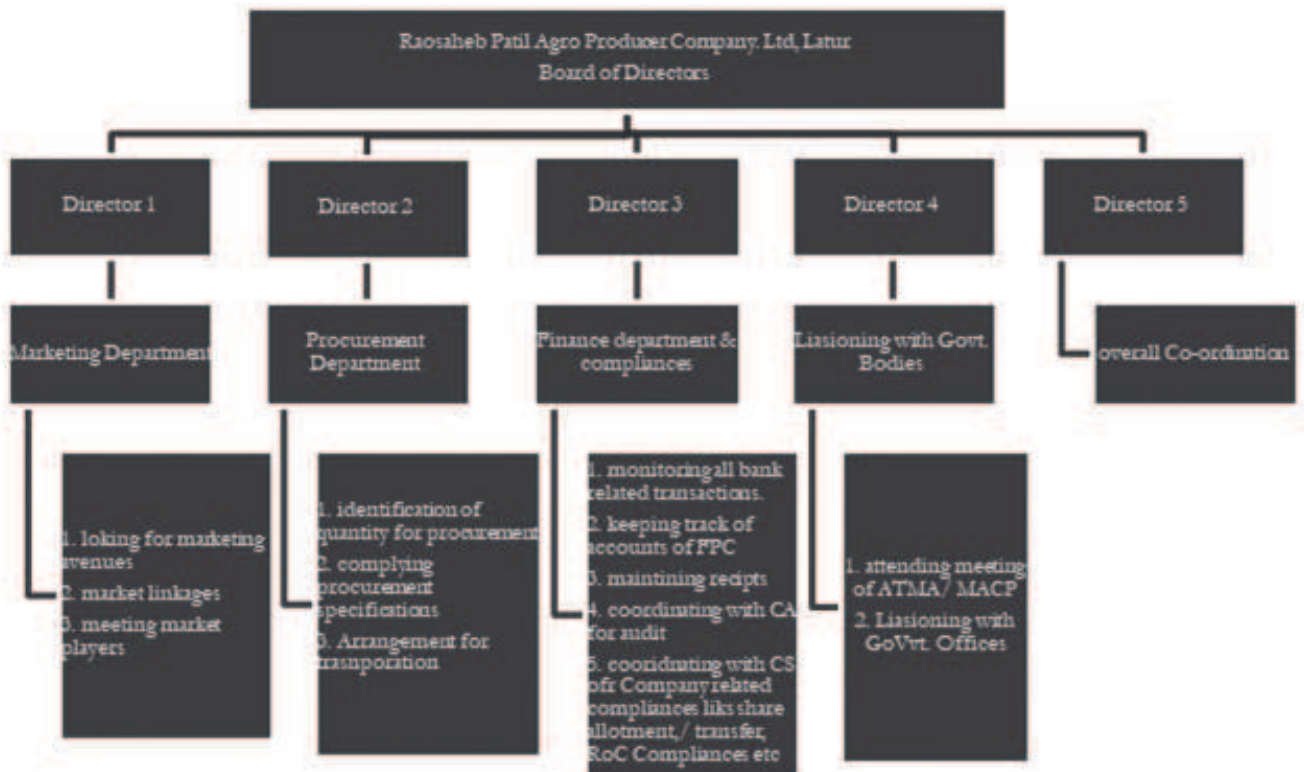
1. Effective delegation requires clarity. One should be quite clear as to what is delegated, and what is not delegated.

2. The delegation must also be accompanied by a clarification of performance parameters and the expected levels of performance.
3. Delegation will not be successful if the subordinate is left to fend for himself. He should be assured of and provided the support in case of difficulty. This support may be in terms of guidance, advice, help, and emotional needs.

Since the task is delegated and the person is learning, it is necessary that initially the performance is closely monitored. As the skill of the subordinates improves, monitoring details may be reduced.

Effective Delegation in FPCs

Roles and responsibilities of promoters are typically to spread awareness about the activities of the FPCs amongst members as well as non-members. Also, promoters strive to build up the member base of the FPCs. The promoters or directors also motivate farmer members to participate in the activities of the FPCs for aggregating and availing cleaning and grading facility. The lead director or chairman of an FPC may carefully and appropriately delegate activities to other directors. For instance, Raosaheb Patil Agro Producer Company Ltd. in Latur, registered in 2015 has about 280 members. The FPC is into a range of commodities and crops like soybean, harbhara, tur, moong and vegetables. The FPC had a turnover of Rs. 1.30 Crore with profit of Rs. 2 Lakh in FY 2016-17. The FPC is relatively matured and has market linkages with ADM and Rallis India Ltd (subsidiary of Tata Chemicals) too. The chairman of this FPC has delegated responsibilities between directors on the basis of mutual consultation.





CHAPTER 6

LEADERSHIP

Highlights

The objective of this chapter is to help develop an appreciation of the different styles of leadership and highlight means to enhance leadership potential by an intrapreneurial director of an FPC.

Leadership can be defined as the process of influencing and supporting others to work enthusiastically toward achieving targets.

A number of leadership styles have been identified.

Autocratic styles consist in ordering/ instructing. The consultative style entails asking for inputs from the followers, but the final decision rests with the leader. The participative style involves the followers in the decision-making process and thus empowers them, too.

It needs to be emphasized that a leader will have a mix of all different styles, but one of the styles will be dominant.

Negotiating, communicating, planning, goal setting, and leadership are all related to each other. A leader has to effectively communicate, negotiate with stake holders, and formulate/implement a business related plan.

6.1 Introduction

The objective of this chapter is to help develop an appreciation of the different styles of leadership and highlight means to enhance leadership potential. Effective leadership may help change ordinary into extraordinary performance. Leadership can be defined as the process of influencing and supporting others to work enthusiastically toward achieving targets.

An entrepreneur as a Leader

- Successful entrepreneurs have been competent leaders as to motivate and guide others to follow his dream/vision and/or an evolved common vision.
- Instruments that can be used to enhance leadership skills include imitating role models, analysing experiences of self and learning from those situations to modify behaviour and to enhance the effectiveness.

Leadership Styles

Skills and roles that leaders display can be developed - communication, goals-setting etc. A number of leadership styles have been identified.

These broadly are:

- autocratic style
- consultative style
- participative style

Autocratic styles consist in ordering/ instructing. The consultative style entails asking for inputs from the followers, but the final decision rests with the leader. The participative style involves the followers in the decision-making process and thus empowers them, too.

Leadership styles may also be people centered or task centered. People-centered leaders are oriented towards people and display care and concern for people. Task-centered leaders are oriented towards the performance and the target. It needs to be emphasized that a leader will have a mix of all different styles, but one of the styles will be dominant.

Developing leadership skills and effectiveness

The following will help in improving the effectiveness of leadership.

- (i) Develop skills of communication and negotiation; and building trust of members.
- (ii) A single leadership style will not work in all situations. One's style may have to vary.
- (iii) Goal setting and goal selling to followers have been found very useful. Therefore, setting appropriate goals, communicating them clearly, and providing support in terms of guidance go a long way to improve performance.

Negotiating, communicating, planning, goal setting, and leadership are all related to each other. A leader has to effectively communicate, negotiate with stake holders, and formulate/implement a business related plan.

Leadership crisis: FPCs that do not take off

In one case, an FPC formed under the MACP in 2015 had a membership of 320 farmers represented in 27 Farmer Interest Groups. The FPC could not take-off as the BoDs had apparently limited co-ordination amongst themselves. There was a leadership crisis and conflict arose amongst the BoDs. This led to fall in faith of members on BODs and the FPC closed initiatives. In another case, the FPC had 300 members but is now virtually non-operational. Apparently, the Chairman and Secretary of the FPC spent raised share capital of Rs 4.5 Lakh without approval of BoD and other members. About 8 Directors resigned and members were disillusioned with the functioning of the leadership. In yet another case, political rivalry over candidature in Gram Panchayat elections led to inactiveness of the FPC.





EFFICIENCY ORIENTATION AND SYSTEMATIC PLANNING AS A TRAIT

Highlights

This chapter stresses the need for efficiency orientation and also specifies role of systematic planning in developing efficiency.

Efficiency orientation has to be inculcated at all levels – managerial, supervisory and worker.

A planning system incorporating the existing or improved standards, a monitoring system that will periodically measure performance with standards, and a compensation system which will reward the performers are means to enhance efficiency orientation.

Systematic planning is critical in the context of efficiency orientation.

The process of planning covers a whole range of activities, deciding in advance as to what will be done, and by whom, when and at what costs.

A periodic measurement of the actuals and comparing them with the planned targets, and taking remedial measures help one to stay on course.

7.1 Introduction

This chapter stresses the need for efficiency orientation. It seeks to inform potential entrepreneurs on importance of this orientation and show how it may be achieved. It also specifies role of systematic planning in developing efficiency. Such efficiency orientation may be in terms of managing various elements in cost of production of an FPC enterprise efficiently. For example; one has to strive for continual increase in productivity, which is the result of increased efficiency.

7.2. Building Efficiency Orientation

Efficiency orientation is a function of four factors:

- All round inculcation and conviction
- Top management practices
- Establishment of standards

Efficiency orientation has to be inculcated at all levels – managerial, supervisory, and worker. This awareness can be built up by training, constant communication, etc.

An attempt to reduce input costs and waste for instance has to be evident as practiced at higher levels of management.

It is, therefore, necessary that quantitative, measurable standards be established for important inputs/activities. The standards, once fixed, have to be continually raised like the exercise bar.

A planning system incorporating the existing or improved standards, a monitoring system that will periodically measure performance with standards, and a compensation system which will reward the performers are means to enhance efficiency orientation.

7.3. Systematic Planning

Systematic planning is critical in the context of efficiency orientation.

The process of planning covers a whole range of activities, deciding in advance as to what will be done, and by whom, when, and at what costs.

The planning process consists of:

- a. Fixing targets such as increasing sales/profits
- b. Fixing premises/assumptions regarding matters such as raw material prices
- c. Deciding quantitative targets of objectives
- d. Determining the resources required, such as, men, material, and money
- e. Scheduling of activities

A planning system is not complete until a reporting and monitoring system is in place.

However carefully formulated a plan may be, it can go wrong because the conditions change, mistakes are committed, etc. Therefore, a periodic measurement of the actual and comparing them with the planned targets, and taking remedial measures help one to stay on course.

Systematic planning challenges: Utilities

Securing electricity connection is a critical issue and challenge faced by many FPCs. The location of the FPCs had not been systematically selected. The cost of transformer and cabling, in some cases, is even about Rs. One lakh, which hinders implementation. Not considering this cost has been a fallacy of several FPCs while finalising location. The requirement of other utilities like water has also been a cause for concern. These two challenges have been faced by some FPCs. Delay in securing electricity connection affected operations of FCSCs for several months. Electricity as well as water connection is a problem faced by some other FPCs. In this case, MACP advocated with District collectors to provide for assistance through the District Planning Committee.

Systematic planning challenges: Marketing and logistics

Marketing and logistics in supply of produce through direct retail has also been of concern to many FPCs. Direct retailing and door-to-door marketing involve careful study of consumer demand. Inability to supply as per needs of consumers affects performance of some FPCs. Transportation of produce after sourcing from members to different locations has also been an area of concern and delivery related delays have been affecting market image. One particular FPC in Pune District has realised a turnover of Rs. 1.5 Crore per annum through direct sale and retailing of vegetables, yet they found it difficult to track the demand patterns of customers. Some days there is high demand for specific vegetables and others may not be sold. As vegetables have low shelf life and are highly perishable they can hardly be stored to be sold later. This particular FPC also experienced logistics problems in procuring from members and supplying to Housing Societies in Pune city.

Systematic planning challenges: Working Capital

Many FPCs have been facing working capital challenges. This has been affecting their performance as well as ability to generate adequate surplus. Data management and management of the accounting function is not viewed to be important by some FPCs. Hence, neither of their financial statements are presentably recorded. This affects their ability to raise working capital. Many have been not able to access working capital, due to poor health vis-à-vis requirements of FIs. Ensuring meeting of statutory compliances is an aspect that remains wanting with many FPCs. They find it difficult to meet costs of expensive Chartered Accountant and Company Secretaries.

Inadequate allowance for commodity price fluctuations

Excessive speculation or high degree of price fluctuation in commodities may also affect performance of FPCs. It is therefore necessary that prudence be maintained in related activity. Some FPCs have been facing difficulties in repayment of loan secured from financial institution. The reasons were three fold : Collection- Aggregation- warehousing and sale model was implemented by an FPC, wherein the FPC purchased pulses from member farmers at MSP but the commodity market later crashed and price fall was seen in market prices of several commodities. The market rate of Pulses fell beyond the MSP. The FPC had already purchased Pulses at MSP and couldn't do anything about it; Procurement of pulses for Government: the FPC procured large volumes of Pulses from members as well as non-members so as to supply to the Government. In this process the FPC faced problem of uncontrollable operational expenses. The labour costs, transportation cost and handling cost were much more than expected. Dal Milling: The FPC under took dal milling activity last year, wherein the FPC faced the problem of operating below break-even as the procurement and operational costs were more than the market price of dal. These were the reasons why such FPCs incurred losses and faced delay in repayment of loan instalments.



SECTION - III

HARD SKILL INPUTS : BASIC MANAGEMENT INPUTS





CHAPTER 1

BOI INPUTS: ASSESSMENT OF A LOCAL AREA TO IDENTIFY/ EXPLORE BUSINESS IDEAS

Highlights

In this chapter various methods of conducting an assessment survey of a business idea in a specific location are discussed

For proper assessment of a business idea, firstly interaction with various sources of infrastructure is required: existing entrepreneurs/FPOs in the region, market actors, raw material and technology service providers, FIs, DIC, related departments, private sector service providers.

Also carrying out desk research and field survey related to the proposed business idea is required to be done. Thereafter, compilation/tabulation of the information gathered has to be done.

A comprehensive comparison of the available opportunities should be done to assess whether one is technology wise comfortable, profitability of business, risk involved in the project etc.

There are various errors one can commit during opportunity selection like copy-cat syndrome, fallacy of numbers, inaccurate information etc.

1.1. Introduction

This chapter elaborates on the methodology of conducting an assessment survey of potential business ideas for a new or expansion or value adding project in any specific location. This may support planning expansion of activities of an FPC into secondary processing as well.

The methods of desk research and field survey may involve interactions with various actors/sources.

For this purpose, contact points need to be developed with:

- Existing entrepreneurs
- Market related actor-traders, wholesalers, retail outlets
- Reports of leading industry and trader's associations
- Technology sources (R&D institutions)
- Equipment suppliers
- Raw material suppliers
- Private and public consultant
- NGOs
- Financial Institutions (FI)
- District Industries Centres (DIC)
- Govt. officials in related departments
- Other support organisations and institutions (Agriculture Universities)

1.2. Steps

Desk research is done to extract relevant secondary published data from various sources. ^(xxiv)

Illustrative sources of secondary information

- Reports/Journals of Technical/R&D institutions/Govt. Departments
- Statistical reports district-wise, industry-wise etc.
- Directorate of Industries
- Project profiles / product data
- Magazine and periodicals
- Project report of financed unit, trainees of related programmes, clients etc.
- Government plans and budgets (state and central)
- Newsletters of chambers/industry associations
- PD ATMA
- Agriculture Colleges

Field survey

Table 6 : A tentative list of contacts (that may be made at the time of field visit)

i. Source	ii. Data/Information procurable
District Industries Centre, Technical Consultancy Organization, Financial Institutions-Lead Bank, Industrial Development Corporation	Data on existing enterprises, new projects likely to come up in the near future, available infrastructure facilities.
	Names and addresses of trade/manufacturing associations, successful entrepreneurs in the location.
	List of sick and failing units, the reasons for sickness and lessons for new entrepreneurs.
Successful entrepreneurs in specific sectors	General health of the enterprises in the region/specific sectors.
	Major products manufactured, market, export potential, new products and projects in the pipeline.
	Government policy and procedure, problems faced by the existing units, policy measures for growth of food processing units, availability of testing facilities, Research and Development (R&D) laboratory, skilled manpower, finance, common facility centre, seminars and workshops, etc.
Chambers of Commerce and Industry/Industry associations	List of members, policy factors influencing business performance - presentations made to the Government and other agencies.

1.3. Compilation / tabulation of information

Upon completion of assessment survey to broadly identify business opportunities, the findings may be tabulated as below. Information like the name of products, major highlights, resources required, approximate investment, critical success factors, requisite background of the enterprise and opportunities may be studied.

Table 7 : List of some Machine Manufacturers and Suppliers

Sr. No	Company	Technology/Service	Contact Person	Contact No.	Location
1	DSK Milkotronics Pvt Ltd	Nano milking machine	Mr. Hemant Bhosale	7767800181	Pune
2	Padmatech Engineering Systems	Pomegranate Aril Extractor hand tool	Mr. Makarand	9822552882	Pune
3	Pest Control India Pvt Ltd	Solar bubble dryer	Mr. Ashok Jejurkar	9371010540	Jaipur
4	Ajay Industries Limited	Pedal cum power operated grain cleaner	Mr. Ajay Pawar	9423123023	New Delhi
5	Padsons Industries	grain cleaner	Mr. Amit Padgilwar	9921363339	Maharashtra
6	Shreeram Associates	Mini dal mill	Mr. Manoj Khandelwal	9823090002	Jaipur
7	Xylem	Saajhi treadle pump	Mr. Gaurav Kumar	7506469017	Mumbai
8	Ossain Agro Automation Pvt Ltd	Nano ganesh	Mr. Shostwal Jain	9822503403	Maharashtra
9	Padgilwar Industries	Sealing machine	Mr. Ravi Chavan	0202-24264306	Maharashtra
10	Science for Society	Solar conduction dryer	Ms. Sheetal Somani	7588565627	New Delhi
11	Next Gen Drying Systems Pvt. Ltd	Custard apple pulp extractor	Mr. Shivanand	9822653515	Maharashtra
12	Agrosaw	Seed treater, potato harvester	Mr. Mohammad Farook	9410270043	Ambala
13	Dollar Engineering Industries Pvt. Ltd	Bakery equipment	Mr. K.P. Jayprakashan	9845037555	Bengaluru
14	MITKAT Advisory	Silo bags	Mr. Sushil	9049001353	Gurgaon
15	AGRORIFE	Ripening chamber	Mr. Sunil Bhatt	9225137161	Pune,
16	Vardha Engineers	Hand wash and rinse type tub	Mr. Avinash Vaidpandey	9422026601	Chennai
17	Arfa Agro products	Multipurpose poly house solar dryer	Mr. Shaik Karimulla	9849788786	Andhra Pradesh
18	Best Engineering Technology	Mobile steam boiler for turmeric	Mr. Veer Thank	9440344335	Hyderabad
19	Kaps Engineers	Pulveriser/ grinder	Mr. Amit Mehata	8447530717	Vadodara
20	Tinytech plants	Oil extraction machine	Mr. Manish	9227606570	Rajkot
21	Adarsh Engineering work	Oil extraction machine	Mr. Praveen Sharma	9422102490	Maharashtra
22	Renuka Enterprises	Khoya making machine	Mr. B. Prabhakar	9822658092	Maharashtra
23	NDRI Karnal Campus	Solar conditioned dryer	Mr. A.K. Singh	9416292406	Kanal
24	IIHR	Shrink packaging of fruits and vegetables	Mr. R.R.B. Singh	080-28466420	Bengaluru
25	Vishwakarma Enterprises	Seed treater	Mr. Virendra Agrawal	002482-237845	Jaipur
26	EG Kantawalla. pvt. ltd	Weighing machine	Ms. Sheetal	020-27010244	Maharashtra
27	Process Masters	Pulveriser, washers etc	Mr. Uday More	9822841127	Maharashtra

28	Fan Bro Erectors	Grain processing machine	Mr. Uday Phansalkar	8447543742	Mumbai
29	Krishna Grain System Pvt. Ltd.	Grain pre cleaning	Mr. Rakesh	8447523018	Maharashtra
30	Vertex Industries	Grain discharger	Mr. Rana Ji	8587833357	Maharashtra
31	Buhler India Pvt. Ltd.	Gravity separator	Mr. Surojit Bhasu	9643811908	Maharashtra
32	Auram Packaging system	Capping machine	Mr. Suhas Nandkarni	91-22-25415807	Maharashtra
33	Concept Packaging International Pvt. Ltd.	Labelling machine	Mr. Shriram Gopal	91-22-24037530	Mumbai
34	A. R. Enterprises	Food processing machinery	Mr. Rizwan Khan	91-22-25007860	Mumbai
35	Aakanksha Technologies		Mr. Rajesh Burande	9810193422	Nagpur
36	A. A Cold Storage & Ice Factory Pvt. Ltd.	Cold storage	Mr. Hiten	2768 35 45	Mumbai

Such profiling of an inventory of potential business options in a location could serve as a basis of BOI.

Opportunity Selection : The final selection may also require a detailed project report preparation inclusive market survey, technical analysis, and financial viability.

One should make a comprehensive comparison of the opportunities. This means that for each option of an opportunity, one should ask and answer a series of questions:

1.4. Product/service: Questions for final selection

1. Is the product/service an established idea or an innovative one?
2. Does the project-cost match investment preparedness?
3. Is the technical know-how a critical element?
4. If yes, how easy or difficult is it to acquire the requisite know-how?
5. How easy or difficult is it to absorb the technology?
6. What is the product/service used for?
7. Who are the customers? (e.g. industry, households).
8. What are the expected geographical boundaries of the target market?
9. What is the market position in terms of size, segment, and features?
10. Is the demand round the year or seasonal?
11. How volatile is the selling price?
12. What is the degree of competition?
13. What is the basis of competition? (e.g. price, quality, service, delivery schedule).
14. Is there scope for positioning your enterprise?
15. What is the possible extent of competitive advantage/disadvantage of a new enterprise in relation to existing enterprises?
16. What is the position of product in terms of existing/likely substitutes?
17. What is the amount required for initial/regular sales-promotion?
18. How dependent is the project on imported inputs/export market? In what ways? Technical know-how? Machinery? Raw Material? Market?

19. Are the raw materials easily available?
20. How volatile is the raw material price?
21. Is there scope of speculative trading in either raw material or finished goods?
22. What location does one have in mind?
23. How does one view location in terms of industrial infrastructure (water, power, effluent disposal facility), commercial amenities (e.g. telecom, bank, warehousing, goods transport), and social facilities? (E.g. housing, health, education).
24. What is the profile and size of manpower requirement? How easy or expensive is it to arrange it?
25. Is the project critically dependent on some infrastructure (e.g. international air cargo space for a perishable export item)? If so, what is the position of such infrastructure?
26. Will the lending agencies support the project?
27. What is the future outlook for the sector of industry to which the project belongs?
28. Are there any cartels or other privileged groups among existing entrepreneurs, customers, raw material suppliers, or know-how suppliers?
29. How long will it take to establish the project?
30. What is the government policy in terms of the following?
 - technical standards and management (e.g. laws for food industry)
 - control over price and distribution of raw materials (e.g. molasses)
 - excise, value-added tax, sales tax, octroi; (GST in effect now)
 - subsidies and financial incentives
 - credit policy (e.g. there are occasional curbs on bank credit to many agro-industry and other projects).
31. What is the incidence of competitive advantage derived from management and/or violation of government policy in relation to the project?

One will not have answers to all the questions however some key aspects need be focused upon:

- How comfortable will one be technology-wise?
- How easy/difficult is the market position?
- How is the profitability?
- How risky is the project, as expressed through breakeven point and sensitivity analysis?
- What is the future of the industry to which the project belongs?
- Do the success determinants and risk factors match one's own capabilities?

The case illustrations from value-added start-ups facilitated by the ABPF under the MACP indicate the means for opportunity identification (also) for expansion and growth of an FPC.

Secondary and Tertiary Processing Value-Adding Units

Promoters of Bhumata Food Products target local demand for spices and atta by restaurants in the town of Nervasa in Ahmednagar district. Training from KVK has helped them build technical knowledge of the products and processes. Similarly, some experience of his family in small sized coconut water processing project encouraged the promoter of Kisan Agro Foods to venture into carbonated soft drinks in Aurangabad. Rujal Production's promoter narrowed on her business idea upon understanding the growing demand for herbal and food supplements. Technical training with local KVIC helped her in pursuing same.

FPCs into Value-Added Processing

Jai Siddeshwar FPC in Aurangabad district earlier operated an FCSC with cleaning and grading of onion, wheat and pulses. Today, they have identified the opportunity to process and package turmeric and sell the powder in the local market. The perceived transportation and distribution cost advantage to penetrate local markets vis-à-vis players from Mumbai and Pune helped on crystallising the idea.

Sai Pravara FPC in Nagar District was initially into drying of maize. It is now progressing into cattle feed manufacturing with investment of Rs. 8 Lakh. A & B grade output is marketed to C.P. Seeds and other players, while C grade is to be processed internally.

Some FPCs are also graduating into secondary processing.

Errors in Selection

Errors in opportunity selection are fairly common. Why?

- 1. “Copy –cat” syndrome :** There are intrapreneurs who choose a given opportunity because others have taken it up and are seen to be doing well. They do not realise that often there is no room for too many entrepreneurs in a particular product line.
- 2. Fallacy of Numbers :** Several intrapreneurs have a tendency for accepting and relying upon income and profitability estimates. Other factors such as location, local competition, falling customs barriers on imported competitive products which may affect profitability are not considered.
- 3. Mismatch in hard/soft skill competencies of entrepreneur**
- 4. Undifferentiated products/services :** A large number of small enterprises in food processing are not performing well or closing down because they are too identical. There are several similar products in the market. The competition rests on price and the price comes down to an unprofitable level.
- 5. Inaccurate Information :** There are many who identify business ideas based on inaccurate, unreliable, or false information.





CHAPTER 2

BUSINESS PLAN : AN INTRODUCTION

Highlights

In this chapter, a brief introduction to a business plan format for a small FPC enterprise is provided.

The purpose of business plan is:

- To highlight resource needs & means to procure them
- To demonstrate the viability of the business proposition and the potential to repay credit realised.
- To study and anticipate risk.

A business plan helps a director to define objectives, and set targets and design a framework for benchmarking and monitoring implementation.

A business plan must include the purpose of the business plan, promoter's profile, details of the proposed project, market potential, manufacturing process, Income & Expenditure statement and profitability projections.

2.1. Introduction

This chapter provides an introduction to a business plan format for a small enterprise. The purpose of a Business Plan is:

- To highlight resource needs and the means to procure them
- To demonstrate the viability of the business proposition and the potential to repay credit realised
- To study and anticipate risks.

2.2. Coverage of a Business Plan

- What is to be produced/offered, how and when?
- How much is the investment required?
- Where will investment come from?
- Where could loans be sourced from? Are the necessary conditions/requirements for loan realisable? Can loans (if any) be comfortably serviced?
- Can a business survive fluctuations in any of the key parameters?
- What is the payback period on investment?

A business plan helps a Director to define objectives, set targets, and design a framework for benchmarking and monitoring implementation.

2.3. Content structure:

A Business Plan must include the following

- **Project Profile/Snapshot**

The purpose of the business plan, location, resource requirements, volume of business, a brief note on market/customers-consumers, and financial highlights

- **Promoter/Entrepreneur Profile**

Director's qualification, training and experience relevant to the project

- **Details of the Proposed Project**

Requirement of project cost and working capital and means of finance

- **Market Potential**

Brief on potential customers, competition, and marketing strategy

- **Manufacturing Process**

Description of the manufacturing process, plant capacity, expansion plans, quality control procedures, etc.

- **Income statement**

Plant capacity, capacity utilisation, quantity produced/sold, and sales realization

- **Expenditure statement**

Cost of raw materials, utilities, manpower, repairs and maintenance, selling and distribution expenses, administrative expenses, interest on loans availed, depreciation and any other expenses

- **Profitability Projections**

Sales, cost of manufacturing, tax liabilities, repayments, retained profit/loss

A business plan may be as rigorous as an entrepreneur wants. The greater the rigour, the greater the potential for successful expansion and growth.

Note: Yet, the entrepreneur always needs to keep in mind that however lucrative and profitable a business plan may look it is based upon certain assumptions which may vary during practical implementation of project.

2.4. FPC Options

FPCs have considerable scope for expansion and value-addition from primary processing to secondary and tertiary processing. Following is the tabulation of primary processed products being manufactured by FPCs with respect to the commodities being handled by them along with the potential expansion activities for the same:

Table 8 : Category wise commodities and activities

Sr. No	Category of Commodity	Commodities	Current activity by FPC- Primary processing	Some potential future activity by FPC- Secondary/ Tertiary processing
1	Pulses	Tur, urad, moong, Gram	Cleaning and grading Unit, Mini-Dal Mill	Pulse Flours (Besan), Extruded/Fried/Baked snacks (namkeens)
2	Grain	Wheat	Cleaning and Grading Unit	Wheat Flour, Atta, Semolina, Puff/Flakes
3	Millet	Bajra, Sorghum, Maize	Post-harvest Drying Unit	Maize flour, Roasted bajra, Corn grit, corn flakes
4	Grain	Rice	Rice Mill	Rice flour, Rice papad, Rice flakes
5	Oilseed	Soybean	Cleaning and Grading Unit	Soy milk, tofu, curd, flakes, Nutella
6	Oilseed	Groundnut	Decortication, Cleaning and grading unit, Roasted groundnut	Groundnut powder, Spiced and peeled groundnut, paste
7	Oilseed	Safflower	Cleaning, Grading and Packaging	Oil, Cosmetic, seed
8	Fruit	Pomegranate	Waxing, Grading and Packaging	Juice, Seed Oil, peel powder, anardana

9	Fruit	Banana	Ripening, Grading and Packaging	Chips, pulp
10	Dry fruit	Cashew	Grading	Cashew nuts
11	Fruit	Orange	Waxing, Grading and Packaging	Juice, pulp, syrup
12	Vegetable	Lemon-sweet lime	Waxing, Grading and Packaging	Juice, pulp, syrup
13	Fruit	Strawberry	Grading and Packaging	Jam, jelly, juice, pulp, syrup
14	Fruit	Mango	Ripening, Grading and Packaging	Jam, jelly, juice, pulp, syrup
15	Vegetable	Onion, Onion seeds	Grading and Packaging	Dehydrated, powder, spices
16	Vegetable	Tomato	Grading and Packaging	Puree, ketchup, pulp
17	Vegetable	Cabbage , okra, chilli, brinjal	Grading and Packaging	Blast Freeze, vacuum frying, chilli powder and chutney
18	Vegetable	Sweet Corn	Grading, Shredding and Packaging	Conning
19	Vegetable	Potato	Cleaning, Grading and Packaging	Potato chips, papad,
20	Spice	Turmeric	Turmeric powder	Turmeric- Essential oil

2.5. Business Plan: Projections and Realisation of the Plan

Business plans of many FPCs, as were conceived often vary (at least to a degree) from what actually materialised in terms of reserve projections and activities.

Projections Vs Realisation: Plans

Karhamai Agro Producer Company. Ltd., Tal. Baramati, Dist. Pune was registered in 2015 and presently has over 619 members. The FPC is largely into wheat, jowar, bajra, maize, soybean, gram and tur procuring. The proposed business plan focused input facilitation, cleaning and grading of food grains and pulses. The actual income streams, a year later when compared to business plan estimates are presented below.

Business plan: projection of Karhamai Agro producer and Realisation of the plan case illustrations

Sr. No.	Particular	Projected income in Rs. (Y1)	As actual income in Rs. (2016-17)	Difference	Remark
1	Service charges from Facilitating supply of Seeds	90165	67525	-22640	At the time of preparation of proposed business plan in the year 2015, the company had envisaged that the cereals, pulses and F&V seeds could be distributed among member farmers. However, Karhati village comes under the rainfed area wherein area under fruit and vegetable is very low and so could not achieve seed distribution target as per the business plan.

2	Service charges from Facilitating supply of Fertilizer	24345	150000	125655	The company had identified the need of farmers, as the used to travel to distant markets for purchase of fertiliser (approx. 15-20 km away from Karhati village). Due to the FPC's intervention, village level farmers are saving 10-15% on cost of fertilizers. Moreover, the facility is available at the door step of the farmers which has resulted in increased fertilizer turnover.
3	Service charges from facilitating marketing of aggregated produce	521862	276000	-245862	The company had to identify some sort of solution after interaction with farmers to sell their produce to the company. However, due to lack of marketing knowledge and end users (purchasers), the company had not achieved the target as was proposed in the Business Plan.
4	Service charges from cleaning and grading machine	465673	584000	118327	The company had cleaning and grading machines with a capacity of 1 MT per hour and it charges the members for cleaning and grading at Rs. 1 per kg and non-members at Rs. 1.5 per kg to use machines. During the fiscal year 2016-17, the company participated in the SFAC (GoI) tur procurement scheme and procured almost 225 MT tur, worth Rs. 1.13 Crore, from member and non-member farmers.
5	Service charges from Tamarind processing	400000	Nil		Tamarind processing is an innovative activity of Karhamai Company. The company purchased a Tamarind de-husking and seed removal machine in May 2017 and the actual harvesting season of tamarind is in March-May 2018. Hence, this activity has now been accelerated by the company and field level operations are ongoing.

2.6. Typical basic business plan parameters of an FCSC under MACP

The typical business plan of an FPC is presented as under:

Business Plan Model-Grains and Pulses cleaning and grading unit (2 TPH) for FPCs**Table 9** : Business plan model

Sr. No.	Particular	Total Value
1	Building (Built up area of 1500 Sq. ft.)	700,000
2	Machinery and Equipment (Seed Grader, Gravity Separator, De-stoner, Elevators, blowers, controls, weighing and stitching machine and other accessories)- 2 TPH capacity plant	1,100,000
3	Other Fixed Assets (Furniture, Electricals, Computer, Printer, etc.)	100,000
4	Lease Registration Expenses	20,000
Total Capital Investment		1,920,000
Working Capital requirement		2,500,000

Generally, for a 2 TPH cleaning and grading plant, about 10 R (approximately 10,000 square feet) land is required with a built up area of 1,000-1,500 sq. ft. Raw material grains (Soybean, Pulses, Cereals and other seeds) are passed through a sequence of seed grader, gravity separator and de-stoner. The material movement is enabled through bucket elevators and aspiration ducting and blowers connected to machines enable dust collection and control. The cleaned and graded grains are then weighed followed by packaging.

FPCs can approach banks to obtain working capital assistance, which is mainly required for procurement of raw material grains from FPC members and to process for orders. For marketing, tie-up with processors, wholesalers, retailers and some institutional buyers could be pursued.

Business Plan Model-1.5-2 TPD Fruits and Vegetables (F&V) Grading, Packaging and Marketing unit for FPCs**Table 10** : Business plan model

Sr. No.	Particular	Total Value
1	Building (Built up area of 1500 Sq. ft.)	700,000
2	Machinery and Equipment (Sorting/Grading Tables for manual grading, Plastic Crates, Weighing Scale, Pouch Sealer, Vehicle/Pick-up for Material transportation)	1,000,000
3	Other Fixed Assets (Furniture, Electricals, Computer, Printer, etc.)	100,000
4	Lease Registration Expenses	20,000
Total Capital Investment		1,820,000
Working Capital requirement		1,000,000

Generally, for a 1.5-2 TPD Fruits and Vegetables (F&V) grading and marketing unit, about 10 R (approximately 10,000 square feet) land is required with a built up area of 1,000-1,500 sq.ft. Raw material (fruits and vegetables) are first graded on basis of shape, colour and other parameters. The material movement within FCSC premises is enabled through crates and buckets. The cleaned and graded fruits and vegetables are then filled in bags and weighed followed by stitching and dispatch. A 1.5-2 Tonnes capacity pickup is used to dispatch material to key retail markets in proximity of FCSC.

FPCs can approach banks to obtain working capital assistance, which is mainly required for procurement of raw material F&V from FPC members and to process for orders. For marketing, tie-up with processors, wholesalers, retailers and some institutional buyers could be pursued.





PROFILING VARIOUS STAKEHOLDERS AND ANALYSIS OF INDUSTRY STRUCTURE IN TARGET MARKETS

Highlights

This chapter offers insights into the methodology of profiling various actors to understand or evolve roles in terms of facilitating growth of an enterprise.

A study of various actors in the sub-sector will help conduct a structural analysis of the industry and also position an enterprise in the environment.

Such analysis firstly involves analysing the structure of specific industry by evaluating the circumstances of an enterprise.

The same can be done by evaluating the following instruments:

- Strength of customers and consumers
- Strength of inputs suppliers
- Strength of barriers to entry of new enterprises
- Competition

3.1. Introduction

The objective of this chapter is to offer insights into the methodology of profiling various actors such as the Government, suppliers, customers and consumers, industry associations, competitors, and private and public service providers and institutions. The purpose of this exercise is to understand/evolve their roles in terms of facilitating growth of an enterprise. The chapter also presents the means to analyse the structure of a sub-sector in a target market, viz., in geographic or demographic analysis for preparing a business plan.

The various actors and their roles to be profiled include:

Sr. No.	Type of Stakeholder	Examples
1.	Financial Institutions	Small Industries Development Bank of India (SIDBI), National Bank for Agricultural Reconstruction and Development (NABARD), and the National Small Industries Corporation (NSIC) and commercial bank such as SBI, BOB, micro-finance institutions like Friends of Women World Bank, NBFCs like NAB-KISAN, Export – Import Bank of India
2.	Facilities for testing and research	KVKs, SAUs, ARCs, NRCs
3.	R&D, and training facilities	RSETI, ATMA, MSM-EDI, DICs, EDIs
4.	Suppliers of consumables and inputs	Input Companies (Seed, Fertilizer, Pesticides), Mahabeej, Dept. of Agriculture



5.	Machinery suppliers/manufacturers	Local, National and International Companies like Agrosaw, Buhler, etc., Packaging machinery suppliers
6.	Knowledge partners	CFTRI, Technical Consultancy Organizations (TCOs), ABPF, MACP
7.	Transportation Facility	Transport companies/agencies
8.	Storage Facility	CWC, SWC, MSWC, Private godowns, Cold storage, Cold room
9.	Marketing Facility	Traders, APMC, Commissioning agents, MSAMB, Dun & Bradstreet (Market Information & Credit rating), ITPO, APEDA
10.	Buyers	Small & large processors, wholesalers, retailers, exporters
11.	Industry Associations	Regional and national industry associations like Maratha Chamber of Commerce, Federation of Import Export Organization, etc.
12.	Grant & Aid Facility	MoFPI, NABARD, SFAC, etc.
13.	Support Institutions	NSIC, Small Industries Development Organization, Export Credit Guarantee Corporation, etc.

The medium and larger units face problems? This may be related to standards, relatively poor availability of sophisticated testing facilities for export market orientation, and lack of R&D support for new product development.

The tiny and smaller enterprises including FPCs face problems? Perhaps, problem is with the regard to uniform quality of raw material, problems related to process and quality control, packaging for better shelf life, working capital finance, and absence of adequate information on commercial and technical issues.

A study of various actors in the sub-sector will help conduct a structural analysis of the industry. This will also help position an enterprise in the environment. The methodology of such an analysis is presented in the following sub-section.

3.2. Analysing the Structure of specific industry

The strategic positioning of an enterprise may be evolved by means of analysing industry structure. This is done by evaluating the circumstance of an enterprise vis-à-vis various factors such as entry barriers, the bargaining power of buyers and suppliers, and the nature and degree of competition in the industry (also see Michael E. Porter, 1985):

1. The entry barriers forestall entry of competing enterprises targeting the same market segment. An enterprise may overcome entry barriers by developing proprietary knowledge with regard to technology, distribution channels, brand identity etc.
2. The strength of an enterprise vis-à-vis input suppliers depends on its ability to switch from one supplier to another.
3. The strength of an enterprise with respect to its customers and consumers lies on parameters such as alternate sourcing options to the buyer, and relevant implications to buyers in terms of costs, quality etc.
4. The nature of competition in the market viz. cost/price based, or differentiation/niche market based as well as growth rate of industry (product/service demand) influence the extent of rivalry between competing enterprises.

The structure of a sub-sector determines profitability of a business and its viability. The objective of analysis is to evolve a business plan through which:

- potential competition is kept away by means of raising entry barriers
- bargaining strength of consumers and suppliers is reduced, and
- competition and rivalry do not adversely affect profitability potential of a project.

The instrument presented below will help in evaluating industry structure and to arrive at options to efficiently formulate a business plan.

Strength of Customers and Consumers

Strength of customers and consumers (buyers)
vis-à-vis an enterprise may be studied by means of studying the following:

- A. The following issues may be considered for each potential customer/consumer segment. If the response is positive on these issues, the strength of the customer and consumer category is high.
- Is the customer category comprising of a few major buyers?
 - Does the customer category purchase a large amount of seller's sales?
 - Would the customer group not face significant costs by switching from one seller to another?
 - Are the products purchased by the customer group standard and undifferentiated?
- B. Business Plan: On which customer and consumer category should an enterprise focus its marketing efforts? Why? How?

Strength of Input Suppliers

Strength of input suppliers vis-à-vis an enterprise may be studied by means of analysing the following:

- A. The following issues may be considered for each input supplier typology/segment. If the response is positive on these issues, the strength of the supplier category is high.
- Do a few suppliers dominate the supplier group?
 - Are there no viable substitutes to the products provided by the supplier?
 - Would significant switching costs be incurred in changing from one supplier to another?
- B. Business Plan: On which supplier category should an enterprise focus its marketing efforts? Why? How?

Barriers to Entry of New Enterprises

Barriers to entry may be studied by means of considering the following issues.

- A. Study the entry barriers in the industry. If the responses are positive entry barriers are low.
- Are firms in the industry not highly differentiated? Does brand identification and customer loyalty not exist?
 - Are capital requirements for entry into the industry low?
 - Do firms not have proprietary technology, skill and/or personnel that are not readily available to new entrants?
 - Is the industry not characterized by high economies of scale, i.e., unit production costs decrease as production increases?
 - Are distribution channels not limited or already captured by existing enterprises?
- B. Business Plan: What specific steps can be taken to raise entry barriers in the industry or sub-sector and keep away potential competition?

Typical FPC related barriers

Some typical barriers related to FPCs include limited access to term loans, working capital to stock inputs, minimum investment required in some secondary processing activities, existing long-standing business in related activity, experienced management team, ability to hire experienced and qualified personnel.

Competition

The issues specified below will help study the extent and nature of competition.

- A. Analyse the checklist below (If the answer is positive unhealthy competition is likely to be high).
- Is industry growth rate relatively slow?
 - Are products highly differentiated from one firm to another in the industry?
 - Is the number of firms in the industry high?
- B. Business Plan: What specific steps can be taken to reduce impact of unhealthy competition?





STRATEGIC POSITION AND MARKETING OF AN ENTERPRISE

Highlights

This chapter shall help us to understand scope for competitive advantage and strategically position of an enterprise.

An enterprise needs to secure a sustainable competitive advantage in terms of cost advantages, differentiation advantages or niche market advantage.

Market research provides important information to identify and analyse the market needs, market size and competition, which makes it essential for distribution, dealer discount, Government Policy, etc.

The method of collecting information as part of a market study includes a study of secondary information i.e. published information. It also includes primary study by interacting with existing and potential enterprises, industrial associations, financial and other support institutions.

The information needs for market analysis include:

- Segmentation of customers and consumers
- Estimating demand and its determinants.
- Competition and supply
- Marketing channel: Product promotion and policy.

Sources of market information include equipment manufacturers, “middlemen” traders, support public and private service providers, FIs etc.

Primary data collection involves the following steps

- Identification of individual
- Preparation of questionnaire
- Tabulation of responses
- Data analysis

4.1. Introduction

The objective of this chapter is to help understand scope for competitive advantage and strategic position of enterprise. This chapter is an extension of chapter titled ‘Profiling Various Actors and Analysis of Industry Structure in Target Markets’.

The first quarter of the inputs stress upon the conceptual underpinnings of the routes to competitive advantage so as to facilitate an understanding of qualitative and quantitative modes of analysis. The following sections stress on modes of collecting primary data in a market study.

4.2. Securing Competitive Advantage

A sustainable competitive advantage need to be secured by an enterprise vis-à-vis its competitors and a market/business plan has to be prepared in this context.

Competitive advantage may be in terms of cost advantage, differentiation advantage (real or notional), or niche market advantage.

With regard to:

- Cost advantage, an enterprise should be able to manufacture and sell products at a lower cost than the competitors.
- A differentiation advantage may be real in terms of better quality of products or notional in terms of brand image.
- A with niche market advantage may include the ability to cater to low volume or small market segments in terms of customised products.

The following sub-section elaborates on information needs and on its collection for effective market analysis.

4.3. Market Analysis: Information needs

The information required for studying the market includes geographic and specific segment related information on the target market, estimating demand and its determinants, competition and supply, etc.

4.4. Segmentation of Customers and Consumers

- The proposed product has to be scrutinized in the context of target markets. What are the product applications?
- This may also involve identification of target market area, segments, and customer and consumer groups. It is necessary to determine geographical boundaries of the market on the basis of market protection through import duties, transport constraints, perishability –fragmented market(?), financial resources of the entrepreneur, etc.
- Determinants of customer and consumer choice of a product over competing products must be identified.
- Segmentation involves categorizing potential customers and consumers into similar sub-groups in terms of income levels, tastes and preferences, etc.

4.5. Estimating Demand and its Determinants

- A market study of demand trends and its determinants needs to be done. Is it seasonal? What are trends and their variations over seasons, etc.?
- Why is a product or service bought/likely to be bought? Some products may be bought for convenience. Some products like fruit drink may be bought on impulse purchase basis as a fun-drink.
- Sector trends in establishment expansion and closure of enterprises have to be also studied as these also affect demand.

4.6. Competition and Supply

- It is necessary to study the selling incentives offered by potential competitors. What is the basis of competition: price, brand or quality?
- Information on competitors with regard to product-mix, output and pricing strategies need to be studied.
- Supply constraints may pertain to electricity shortage, transport bottlenecks, raw material scarcity etc. Import trends of competing products, changes in customs duties on raw material and finished products need be studied. Cartels amongst suppliers and competitors have to be studied. Business practices, ethical or otherwise, also have to be studied.

4.7. Marketing Channels: Product Promotion Policy

- It is also necessary to scrutinise channels of distribution, extension of credit, dealer discount, etc.
- It is important to analyse trends in government policy with reference to import of raw material inputs or finished products.
- One may also love to study the trends and determinants of international demand, competing countries, etc. This is particularly in the context of tradeable products.

4.8. Modes for Information Collection

The method of collecting information as part of a market study includes study of secondary information, i.e. published information. These include journals and publications of the concerned Ministry, industry and project reports from financial institutions and industry associations.

It also includes a primary study consisting of interaction with existing and potential entrepreneurs, industrial associations, financial and other support institutions.

To elaborate, the sources of information are:

- Manufacturers of equipments
- Potential customers ('buyers' or 'middlemen') and consumers
- Competitors
- Consulates of foreign embassies in India and Indian embassies abroad
- Export promotion councils and customs authorities
- Industry support agencies of the Government and private consultants
- Industry Associations
- Financial institutions, R&D Institutions, concerned Ministries etc.

4.9. Specific Market Related Aspects to be Studied

- What is the product-mix and market mix of potential competitors? What are the trends over different seasons in a year? Is it possible to categorize competitors into different groups based on such aspects?
- What are the major strengths and weaknesses of important competitors? How does one position an enterprise and its products in this context?
- How do existing enterprises price their products? Is it a uniform method for all marketing channels? How does one convert existing customers and consumers of the competitors' products?

The sub-section below elaborates on the method of primary data collection.

4.10. Primary Data Collection: Steps, Questionnaire Design and Analysis

The important steps in primary data collection include:

- Identification of individuals/institutions/enterprises from whom information is to be collected. One may draw a sample, viz. only some items from the population. In the case of smaller enterprises, a judgemental selection of the sample may be appropriate.
- One may prepare a questionnaire-schedule to collect information. A questionnaire may be structured in terms of offering alternative responses in the questionnaire or may be unstructured with open-ended questions. In order to develop greater insights, it may be appropriate to administer a questionnaire directly by questionnaire schedule than to seek responses to questions by mail.

This personal administration of a questionnaire by an entrepreneur or his representative is ideal, particularly for smaller projects targeting smaller markets in terms of geographical segments.

- Who are the 'customers' and 'consumers'? A customer is one who buys a product (such as a retailer) but may not necessarily use it (unlike a consumer).
- Why, how and from where do they buy products? Is it for taste, is it on the basis of planned purchase, or is it an impulse purchase, etc.?
- What are the product features and marketing strategy of competitors? Is it channel motivation in terms of retailer margins that is the determining factor?
- How are actors in different marketing channels motivated? Discounts or margins? Brand, Quality, etc.?
- Responses collected through a questionnaire or questionnaire-schedule then need to be tabulated. Data analysis can be done by using simple techniques.

The demand determining variables have to be isolated. It is ideal to pursue market segment-wise analysis. Elementary statistical concepts of percentages, average, weighted average, and mode may be used for studying trends in demand and its determinants.

An important aspect of primary data analysis is sample identification. A sample is a group of elements selected from a population whose perceptions or characteristics are to be identified. For instance, the sampling method adopted may include: simple random, stratified random or non-probability sampling.

In simple random sampling, each item in a sample has a similar probability of being selected. There are several means of random selection. To select a sample of 40 from a population of 200, every fifth item may be selected. Stratified random sampling pertains to a population which contains different types of sub-groups or strata. Different elements are selected from each stratum within a population aimed at generating separate estimates of values for each stratum. A potential entrepreneur exploring food colours, may consider 'small factories' and 'big factories' as separate segments. He may, therefore, select a separate sample from each of these two sub-groups, for analysis. Stratification may also be in terms of area or geographic location. The number of elements to be drawn from the population at each location has to be decided.

Unlike, simple random and stratified sampling which are essentially probability sampling, non-probability sampling, while being similar to stratified sampling, involves selection of elements non-randomly. A quota is set for each type of element. Assume there are 50 units involved in fruit processing in Pune, six medium-sized and forty-four small-sized. One may decide on a sample of 2 medium enterprises and 11 small units. With regard to size, a minimum sample of 30 may be considered as a thumb-rule. It may be a tiny fraction of the population.

Market Assessment: Summary, and Formulating a Market Plan

Market assessment essentially involves study of customers, consumers, other actors, and the business environment in general. Market demand for a product or product-mix may be measured for the whole market or for various customer groups or market segments separately. The demand needs to be estimated in the context of a geographical area and segment for a period of 5-10 years. Several determinants, such as changes in consumer preference, may be only qualitatively assessed.

A market survey helps to formulate a market plan. This helps to decide product features, product and market mix, packaging plan, discount and credit related selling strategy of channel or customer or consumer motivation,

channels of distribution in terms of dealers or wholesalers and retailers, etc. A small enterprise may rarely prefer full time salesmen over commission agents. Advertising media plan (time, frequency, medium, etc.) if required, promotion of product to boost sale through free samples, etc. are all part of a market plan.

Analysis essentially explores:

1. Who are the potential customers and consumers and where are they located?
2. Why should they buy the product?
3. When and how would they buy the product?

The analysis also helps in market segmentation in terms of identification and differentiation between various market segments in terms of different characteristics, and qualification of the levels of demand. Market segments can be in terms of location, ethnic background, age, or income. They may also be in terms of the type of users of the product, i.e. industrial users, for use as an ingredient by wholesalers or retailers, and end-consumers.

Pricing and packaging have to match the target segments once market segments are identified. Market segments may also display different features in terms of frequency, mode, and place of purchase. The marketing plan needs to incorporate these factors. The buying process has to be studied in detail. The buying process includes identification of the decision maker of product purchase, basis of the purchase decision, frequency, mode, and place of purchase. Data on frequency of purchase, seasonality, and mode of purchase helps to decide the packaging size and pricing of products. This information also helps to determine inventory levels and product-mix. Point-of-purchase information helps to design the distribution system, consumer sensitivity to price, and product quality. These have to be considered among others, as the basis of competition which arises from life cycle of the product. A new product faces price competition as against a product entering a saturated market.

Under the MACP, close to a 1000 start-ups have been catalysed by the ABPF. These start-ups are largely into secondary and tertiary processing and are typical micro and small-sized enterprises. Many FPCs may easily graduate into their activities. Importantly, many of these start-ups have been adopting various marketing strategies which provide good learning for FPCs:

Marketing Strategies by Start-ups: Learnings

Rujal Production is a proprietary concern into the business of herbal product and health food supplement manufacture in micro-scale. The lady entrepreneur has established a small unit with own finance in District Pune. The products being manufactured by the enterprise are amla, jamun, bitter gourd, ashwagandha, shatawari and similar herbal powders as well as gulkand, shatawari kalp, chyavanprash, sauf (for household purposes), face pack, hair pack, mehendi, shikekai and hair oil. The entrepreneur has adopted a marketing strategy involving tie-ups with the majority of medical stores in and around Pune. Notably, the products are also sold through Patanjali outlets under the Rujal Production brand. Door to door sales is another marketing strategy adopted by the entrepreneur.

Ruchi Food Products in Pune is into processing of pickles and chutneys and papads. The project comprises machinery and equipment like roasters, pulverisers, coating machine, oven, dryers and packaging equipment. The enterprise markets its products through on-line channels such as Amazon as well as through large retail chains like Reliance and More.

Sulabh Industries in Nagpur produces pulses, by-products like chunni, bhusi and khanda. The entrepreneur sells the products through commission agents, wholesalers and retailers. The promoter leveraged on family experience of many years in the pulses processing business and this has enabled strong connection with consumers across Nagpur and other regions of the country.

Bhumata Food Products in Ahmednagar district processes various products such as coriander powder, cumin powder, chilli powder, turmeric powder and 'Nachani Sattva'. The entrepreneur deploys a unique marketing strategy using referrals from doctors to market Nachani Sattva.

Kisan Agro Foods in Aurangabad produces carbonated soft drinks such as mango drink, coconut water, guava juice and mixed fruit drinks etc. The entrepreneur markets through a large number of wholesalers and retailers to market his produce. He offers higher discounts to retailers than other competitors do.





PRODUCT/MARKET-MIX AND PRICING DECISIONS

Highlights

This Chapter considers the important concepts related to market and product mix decisions on the structuring of a market plan in a venture.

Product mix and pricing decisions are important for projecting and optimising sales revenues, planning a marketing strategy and while offering sales incentives.

For pricing decisions, marginal cost based pricing method is an option. Also, the ideal product and market mix of an enterprise may be identified by means of contribution analysis. Two aspects critical in a market plan are channel motivation and selling incentives.

In marketing, channel motivation involves identifying the right channel and thereafter appropriately motivating channels so as to effectively sell one's products/services.

Selling incentives may be in the form of reduced prices, offering two products for the price of one, etc. They serve as incentives to buy.

5.1. Introduction

The objective of this chapter is to explain important concepts with regard to market and product-mix decisions on the structuring of a market plan in a venture. Concepts such as marginal cost based pricing and contribution analysis are also dealt with in the chapter. These tools facilitate effective market planning and marketing of products/services of a venture.

Product-mix and pricing decisions are critical decisions to be made while projecting sales revenues and planning a marketing strategy and while offering sales incentives.

The Product/Market - mix and a Market Plan

A market plan of an enterprise has to decide on aspects such as product positioning, packaging and real time differentiation that products of an enterprise offer vis-à-vis the products of competitors. What do competitors and other players do:

The larger players operating in a segment may spend on advertisements to both sell the product concept as well as establish a brand image. Marketing emphasises on encouraging consumer 'pull' or demand for products.

The smaller players may use the retailer-focused strategy or direct marketing for consumers. They may focus on a customer (retailer) push strategy by giving them higher margins or by setting up "point-of-sale" displays at retail outlets.

5.2. Costing and pricing: Marginal Cost Based Pricing

As an illustration on selected costing and pricing tools, consider the case of a small enterprise. The estimates in the table given below are annual cost of production estimates of an FPC enterprise X that could manufacture 20,000 bottles of tomato sauce (1kg bottle) per annum.

Table 11 : Break-even level of operation of enterprise

Elements of cost	Variable Cost	Fixed Cost
Inputs and consumables	11,00,000.00	-
Electricity	70,000.00	5,000.00
Labour	6,00,000.00	-
Interest	-	1,80,000.00
Other Expenses	5,000.00	5,000.00
Depreciation	-	10,000.00
Total	15,75,000.00	2,00,000.00

Selling price (SP) of the product per piece is about Rs. 140. The enterprise could therefore earn a total sales revenue of about Rs. 28 Lakh per annum.

$$\text{Break-even point (BEP)} = \frac{\text{Total Fixed Cost} \times 100}{\text{Total Sales Revenue} - \text{Total Variable Cost}}$$

$$= 16.32 \% \text{ capacity}$$

Beyond breakeven, i.e. Production in excess of about 3264 pieces, it is on the basis of marginal costs (per unit) that pricing may be made as all fixed costs are covered at break-even level. Hence, till BEP level of activity the costs work out to Rs. 88.75 per bottle. Beyond BEP the cost that need be considered is about Rs. 78.75 per bottle.

The selling price may be assumed at cost per piece plus 20 percent profit margin for instance. In more price competitive markets or for volumes customers, costing may be on the basis of marginal costs and for others on the basis of total cost per piece.

5.3. Ideal product and market mix to maximize profits

Similarly, the ideal product-mix of an enterprise may be identified by means of a contribution analysis as illustrated in the example below. An Enterprise has six product lines. The Table below provides line wise data on variable costs, selling price, and output of the enterprise for one year.

The smaller players may use the retailer-focused strategy or direct marketing for consumers. They may focus on a customer (retailer) push strategy by giving them higher margins.

Table 12 : Prevailing product-mix of an enterprise in year 2017-18

Sr. No.	Product-mix	Qty. Sold (nos.)	VC/Unit (in Rs.)	SP/Unit (in Rs.)	Total VC (Rs. Lakh)	Total Sales (Rs. Lakh)
1	Pickles-Mango	15000	90	100	13.50	15
2	Pickles-Mixed vegetable	20000	104	120	20.80	24
3	Jam-Mango	10000	34	40	3.4	4
4	Jam-Mixed fruit	3500	40	50	1.40	1.75

5	Masala (Veg.)	10000	32	40	3.20	4
6	Masala (Non-Veg)	12500	34	50	4.25	6.25
Total		66,000			46.55	55

1. The enterprise has a fixed cost of Rs. 3.45 Lakh per annum. Profits amounted to Rs. 5 Lakh in the year 2017-18.
2. Every year, the enterprise has the capacity to make and sell a maximum of 77,500 jars of all products in total. Certain demand related constraints were evident from study of historical trends of business performance:
3. About 55,000 numbers of pickles (Mango and mixed vegetable, each), about 20,000 numbers of Jam (Mango and mixed fruit, each) and about 12,500 numbers of Masala (Veg. and Non-Veg., each) has been the maximum demand for respective product lines a year. Demand patterns vary over the years.
4. Further, as per trends in the last 3 years, minimum demand or order size of 2500 numbers of each product line per year prevailed.
5. The enterprise has to make and offer all six product lines as per the seasonal availability of inputs at competitive prices and as per the demand from regular clients.

How could the enterprise plan its product mix so as to maximize profits?

If the enterprise is to optimise its product-mix (and profits) it should ideally sell about 55,000 jars/units of pickles-Mixed Veg., 12,500 units of Masala (Non-veg.), and 2,500 units of other products. Product-mix need be reoriented in a manner that those with maximum contribution be sold.

Table below presents the product-mix that is optimal from profit maximization point of view.

Table 13 : Ideal potential product-mix of the enterprise

Sr. No.	Product-mix	SP/unit or bottle	VC/unit	C/unit	Qty.	Contribution	VC	SP
1	Pickles-Mango	100	90	10	2,500	25,000	2,25,000	2,50,000
2	Pickles-Mixed vegetable	120	104	16	55,000	8,80,000	57,20,000	66,00,000
3	Jam-Mango	40	34	6	2,500	15,000	85,000	1,00,000
4	Jam-Mixed fruit	50	40	10	2,500	25,000	1,00,000	1,25,000
5	Masala (Veg.)	40	32	8	2,500	20,000	80,000	1,00,000
6	Masala (Non-Veg)	50	34	16	12,500	2,00,000	4,25,000	6,25,000
					77,500	11,65,000	66,35,000	78,00,000

Fixed costs being Rs. 3.45 Lakh, if the enterprise can restructure its product-mix, it can increase its profit to Rs. 8.20 Lakh per year from the current Rs. 5 Lakh.

Nevertheless, selling incentives by way of a right credit sale/discount offering would have to be evolved so as to encourage sales of product with higher contribution and in turn encouraging such shift in the product-mix. An ideal selling stratagem should also ensure that customers/consumers should prefer specific products of the enterprise vis-à-vis similar offerings from competitors.

The illustrations on product-mix applies to market mix analysis also. The costing and pricing, and contribution analysis tools presented in this chapter also indicates scope for sales promotion incentives and market segmentation based approach. These tools may be incorporated over day to day management of an enterprise as also to enhance rigour in terms of market-mix and market-plan as part of an efficient preparation of a business or project plan.

Channel motivation and selling incentives

Two critical aspects in a market plan are channel motivation and selling incentives.

5.4. Channel Motivation

The marketing channel motivation involves identifying the right channel, and thereafter, appropriately motivating channels so as to effectively sell one's products/services.

A manufacturer may encourage a distributor by increasing dealer discounts or margins. This is a customer 'push' strategy that one may adopt. One may also invest in advertising or promotion through media and develop brand equity, and thus encourage 'demand' of products by consumers—a consumer pull strategy.

5.5. Selling Incentives

Such incentives may be in terms of reduced prices for large offtake, offering 'two products for the price of one' product building and such other options. They serve as an incentive to buy. Selling incentives to promote sales amongst consumers therefore include reduced price packs and bonus packs. Sales incentives for sales personnel may include a commission on sales.

Marketing constraints faced due to non-homogenous production and aggregation

There is need for market oriented production by farmers. Some FPCs have not carefully oriented their product and market mix even in their existing operations. This could be through:

- Market driven production - Homogenous sowing and production through members: FPCs could undertake interactions and seek recommendations of processors and other buyers to understand their preferred variety of seeds and the reasons for such preference. The FPCs can further recommend their members to use only those varieties for sowing and production or alternatively also undertake seed distribution to ensure homogenous production. Large scale homogenous production of preferred seeds will help build favourable brand image of FPC among buyers. It will also help FPC to undertake repeat orders and thus plan even daily dispatches.
- De-promotion of un-sought varieties: FPCs could sensitize its members and highlight about marketing problems associated with unsought varieties. They could highlight that although seeds of such varieties may help farmers achieve marginally higher yield but the demand and remuneration for same in market also remains very low.

For example, many FPCs in Vidarbha region – primarily in Amravati Division have farmer members involved in production of pulses. Tur (pigeon peas) of certain varieties grown in this region are highly preferred by pulses processors (especially dall millers). Many dall millers in the Nagpur, Amravati and Akola districts specially prefer "Maruti" variety in tur. The major reasons for such preference include processing friendliness (due to relative ease in husk removal), good seed size, good colour, etc. On the other hand, certain seed varieties ('lesser preferred seeds') of Tur have negative demand from processors. The farmers using these lesser preferred seeds for production often cite relatively higher production yield observed as against that with use of Maruti variety seeds. However, in processing, these lesser preferred seeds often lead to severe processing losses as the husk coat on these seeds is not easily removed and in order to remove the husk, processors are required to condition and run

roll process on seeds several times. In this process, yield losses are very high (due to continuous abrasion leading to higher broken percentage) and even after several roll process applications the husk may still not get completely removed. Obviously, this means high processing losses. Despite such market dynamics, while many farmers grow Maruti or equivalent variety in tur, some still grow the lesser preferred varieties. Naturally, when FPCs aggregate Tur from their members or other farmers to process for large orders, the lots are not homogenous which obviously lead to: Low price offer by buyers; rejection of the complete lot, if the specification regarding seed variety and homogeneity were specified in Purchase Order Terms and Conditions; no repeat orders if the client suffers processing losses.

Profit on sale highly depends not only on the strategy to aggregate homogenous raw material from members, but also quality monitoring of such aggregation/procurement. In this context, specification and tolerance levels should be defined. In a nutshell, farmers supplying as per specification should be incentivised with best remuneration, whereas those supplying inferior quality and breaching tolerance levels should get price cut pro-rata basis.





NETWORKING WITH LARGE PROCESSORS/MARKETERS IN THE VALUE-CHAIN

Highlights

This chapter presents typical market linkage options for FPCs with large processors and retailers. C.P. Seeds and Soufflet are into direct procurement in a large way from farmers in Maharashtra and Rajasthan.

Some of the potential value chain leaders for market connectivity include Walmart, Reliance fresh and Coco Cola for horticulture produce. Firms like CP Seeds for maize and Tasty Bites for onion. Haldiram's is into spices, pulses and potato. There are also smaller players like Chhatariya Exports into garlic and ginger and Venkatesh Food Industry into fruit and vegetable.

6.1. Efficient market linkages: Illustrations

C. P. Seeds Pvt. Ltd.- Intervention in Maharashtra

C. P. Seeds is a global leader in maize and maize seed production. About 18 FPCs of Solapur District in Maharashtra have tied-up with CP Seeds in 2017 for the direct sale and purchase of the commodity maize. This has brought about 1 to 1.5 thousand acres of land under Maize cultivation already. The linkage has also helped in enhancing quality and quantity of production output that will in turn boost incomes of approximately 5 thousand farmers by more than 50 per-cent per acre per year. CP Seeds has a procurement centre in Pune which is as of now procuring around 4000 to 5000 MT Maize from about a thousand farmers. The company has a target of procuring 50000 MT Maize from Maharashtra in the near future by connecting with more than 12000 farmers. They also have a processing facility with capacity of 50000 MT in Nervasa, almost 80 kms from Pune.

The marketing tie-up with CP Seeds has already led to a positive impact on productivity by increasing it from average 20 Quintals to approximately 35 Quintals per acre by using HYV-CPC 828 seeds. Output by the FPCs is procured by CP Seeds at a premium of Rs. 50 per quintals. CP Seeds has also provided "package of practices" like growth regulators, NPK and bio tonics to increase the productivity with reduced input costs. Notably, maize cropping has a comparative advantage over other crops as it allows 2 harvests in comparison to alternate pulses cropping.

Soufflet- Intervention in Rajasthan

Soufflet is one of the leading companies in Malt processing in India. It has one of its processing units in Alwar, Rajasthan. The company has a procurement centre in Kota which is as of now procuring more than 10000 MT of barky from about 3500 farmers. They have a target of procuring 100000 MT of barley from Rajasthan in times to come by connecting with more than 35000 farmers.

The ABPF- GT functional in Rajasthan is working towards linking the FPCs in the Barley production region with Soufflet for Barley procurement. Also, Soufflet would transfer better quality seed varieties and good agricultural practices to the involved farmers of FPCs. It would increase the Barley yield from average 16 Quintals to about 25 Quintals

per acre. This would not only directly reduce input costs in terms of seeds and other inputs but also enable a shift from relatively water intensive crops like wheat to barley.

6.2. Direct Market linkages

Direct Market linkages have been established by FPCs with a range of large processors as well as retailers. The following tabulation illustrates on options:

Table 14 : Networking with Large Processor and Marketers

Sr. No.	Name	Company Profile	Address	Contact Person	e-mail
1	B. Y. Agro & Infra Ltd	B. Y. Agro & Infra. Ltd is a frozen foods manufacturer, supplier and exporter in India producing IQF frozen foods, frozen fruits and vegetables and dairy products in India	Works – Kh. No. 275, Village – Sindhivihri, Tehsil – Karanja (G), Dist. Wardha - 442203	Mr. Yogesh Pathrabe (GM) Procurement	yogesh@byagro-infra.com
2	Supermarket Grocery Supplies Pvt. Ltd. (Big Basket)	Supermarket Grocery Supplies Pvt Ltd. owns and operates an online food and grocery store in India. It offers bread, dairy and eggs, grocery and staples, fruits and vegetables, beverages, branded foods, personal care and over-the-counter products, household products, utilities, and meat	Survey No. 278/3, Hinjewadi, Phase II, Opp Hinjewadi Industrial Power Station, Tal. Mulshi, Pune, Maharashtra, 411057	Mr. Shushil Singh, Regional Head – B & M	Sushil.singh@bigbasket.com
3	Shri. Laxmi Agro Exports	Shri. Laxmi Agro Exports tomatoes, plastic crates and pomegranates	LTC Building, Ghargaon, Tal. Sangamner, Dist. A. Nagar – 422 620	Mr. Rahul Gadge	Rahul.gadge99@gmail.com
4	Kay Bee Exports	Exporter of all types fresh fruits and vegetables	605, Dev Corporation, Near Cadbury Company, Eastern Express Highway, Khopat, Thane (W) 400 601	Mr. Prakash Khakhar, Chairman	prakash@kay-beeexports.com
5	Maharashtra Agro Industries Development Corporation Ltd	Purchase & Supply to agriculture Dept. to distribute to farmers on subsidy basis	Dwarka, New Mumbai – Agra Road, Nasik - 11	Mr. Bharat Jadhav, Asst. Manager	bharat22272@yahoo.com

Sr. No.	Name	Company Profile	Address	Contact Person	e-mail
6	Horticulture Produce Exporters Association	Mainly Onion	515, Bezzola Complex, Sion Trombay Road, Chembur, Mumbai – 400 071	Mr. K. Venkataraman, Secretary	onionexporters@yahoo.com
7	Grainotech Industries Ltd.	Maize & Jawar	Gat No. 238,239, Bhendale, Tal. Gangapur, Dist. Aurangabad	Mr. Shivaji Ingole, Purchase Manager	Shivaji.ingole@grainotech.com
8	SKM Animal Feeds and Foods (India) Pvt. Ltd.	SKM TN based company is pre-dominantly in manufacturing of cattle and poultry feed with a production capacity of 36,000MT of animal feeds per year.	R.O – Nanjai Uthukuli, Modakkurichi, Erode – (TN) – 638 104	Mr. Ramdas N. Bavaskar, Manager Purchase	Chetanrb1994@gmail.com
9	Reliance Retail Ltd.	All types of fresh fruit and vegetables	Reliance Corporate Park, Bldg. No. 4, Wing A, 2nd Floor, Gate A, Thane-Belapur Road, Ghanoli, Navi Mumbai – 400 701	Mr. Santosh Ugale, Dy. General Manager	Santosh.ugale@ril.com
10	Kalya Exports	KALYA EXPORTS is export oriented company involved in exports of various fruits and vegetables since 1993. Kalya Exports is continuously exporting table grapes to UK and EU supermarkets since grape exports exist.	Tarakunj, New Adgaon Naka, Panchavati, Nasik	Mr. Amit Kalya, Director	amit@kalyaexports.com
11	ADF Foods Ltd	ADF foods Ltd is a Supplier and manufacturer of ethnic indian pickles, chutneys, canned foods frozen foods and spices, north indian pickles, south indian pickles, instant	Plot No. E-5, MIDC Industrial Estate, Malegaon, Sinnar, Nasik – 422103	Mr. Dinesh Jaiswal, GM – Works	dinesh@adf-foods.com
12	Krishi Pragati Foundation	Krishi Pragati is a non-profit organization specializing in fresh agri produce supply chain and helps bridge gap between the farmers and consumers	216, Gera Junction, Lulla Nagar Square, Kondhawa, Pune – 411 040	Mr. Banshi Katkar, Head – Farm Linkages	Katkar-banshi.katkar@krishipragati.org

Sr. No.	Name	Company Profile	Address	Contact Person	e-mail
13	Amarsinh Agro Producer Company Ltd	Amarsing Agro Producer Company. Ltd is an FPC promoted by MACP and is involved in procurement of Soybean	1025, Pisal Bidg, Bazartal Karjat, Tal. Karjat, Dist. A. Nagar, MH – 414402	Mr. Vitthal Pisal, MD	amarsinhagro.pcl@gmail.com
14	NEML (NCDEX e Markets Ltd)	Online trading platform for main agro commodities i.e. Maize, Gram etc..	Ackruti Corporate Park, 1st Floor, LBS Marg, Kanjur Marg, (W), Mumbai - 400078	Mr. Sandeep Dhabugade, Sr. Executive	Sandeep.dhabugade@nspot.in
15	Maharashtra State Seed Corporation Ltd.	Government body working with farmers for good seed production in Maharashtra	Plot. No. C-64, Add. MIDC Area, Aurangabad Road, Jalna, MH	Mr. J.R. Khokad, District Manager	msscjalna@mahabeej.com
16	Jay Agro - Export	Jay Agro Export is one of the leading fresh fruit, vegetable & maize export company from India. Their main activity is export of Table grape, pomegranate, onion & maize for quality production. Bayer Crop science and jay agro export have entered in to partnership to produce highest quality table grape according to global gap standard and good agricultural practice.	9, Bhavik Apartment, Near Prasad Mangal Karyalay, Gangapur Road, Nasik – 422 013	Mr. Nandkumar Ahire, Director	Nandkumar.ahire@jayagroexport.com
17	Universal Starch-Chem Allied Ltd	Universal Starch-Chem Allied Ltd is a supplier, exporter and manufacturer of maize starch powder, maize starch powder - ip (special quality), maize starch powder - (pure), white dextrin	Rawal industrial Estate, Dada Nagar, Dondaicha Dist. Dhule - 425408	Mr. K.P. Girase, Sr. Manager (Raw material)	dondaicha@universalstarch.com
18	M/s. Amol Udyog/Pulses	Manufacturer of all kinds of Pulses & Dal	64- A, Market Yard, Latur – 413 512	Mr. Amol Bachewar, Director	Amoludyog1995@gmail.com

Sr. No.	Name	Company Profile	Address	Contact Person	e-mail
19	Sai Agro Services	Exporter of all kind of fresh fruits & Vegetables	11, Sonia Apt, Indrakund, Panchavati, Nasik, MH – 422 003	Mr. Harshal Bhagwat, Manager Marketing	saiagroservice@gmail.com
20	Siva Sai Exports	Exporter of all kind of fresh & Processed fruits & Vegetables	Gat No. 740/21, Vani Road, A/p – Khedgaon, Tal. Dindori, Dist. Nasik – 422 2015	Mr. Ajay Kale, Head - Procurement	ajaykale29@gmail.com
21	Gopal Industries	Manufacturer of all kinds of Pulses & Dal	89 – A, Market Yard, Latur -	Mr. Kishor Bida-da, Director	kishorlatur@yahoo.co.in
22	Kalantry Food Products	Kalantry Food Products is a manufacturer of Tur dal, Moong dal, Chana dal	D-22, Market Yard, Latur - 413512	Mr. Manish Kalantri, Director	manish.kalantri@gmail.com
23	Raman Pulse Mills	Manufacturer of Toordal, Moongdal, Moong Polish, Moong Chilti	C-3, Old MIDC, Jalna – 431203 (MS)	Mr. Pragnesh Keniya, Director	Keniyaprag-nesh72@gmail.com
24	Patni Pulses	Manufacturer of Toordal (Double Gajraj Brand)	Plot No. B-2, Old MIDC, Jalna – 431 203	Mr. Pankaj Patni, Director	Pankajpatni99@gmail.com
25	Latur Solvent Extraction Pvt. Ltd	Manufacturer of refined Oils & De-Oiled Cakes	R7/1408, Shanti House, Opp. Market Yard, Gat No. 2, Manthale Nagar, Latur – 413512 (MH)	Mr. Vijay Saboo	Laturesolvent12@gmail.com
26	Bhumi Cottex Industries Pvt. Ltd.	Manufacturer of Cotton Bells & De-Oiled Cakes	1, Runawal Complex, New Mondha, Jalna	Mr. Paresh Runawal, Director	paeshrunawal@gmail.com
27	Bajrang Pulses & Agro Products Pvt. Ltd.	Manufacturer of all kinds of Pulses & Dal	Plot No. C-1 & C-2, Old MIDC, Jalna – 431 2013	Mr. Bhakkad, Director	bajrangdallmill@rediffmail.com
28	Abhay Nutrition Pvt. Ltd.	Manufacturer of all kinds of Pulses & Dal, Manufacturer of refined Oils & De-Oiled Cakes	Gut. No. 84, Gundewadi, Bhokardan Road, Jalna – 431 203	Mr. Ashish Mantri, Director	ashish.m@abhaynutrition.com
29	Gauri Agrotech Products Pvt. Ltd.	Manufacturer of Soybean & Corn Products	Gut. No 79 & 91, Gundewadi Bhokardan Road, Jalna – 431 203 (MH)	Mr. Mukund Mantri, Director	gauriagrotech@gmail.com
30	Amit Agro Industries	Manufacturer of All kinds of Pulses	Plot No. C-3, & C-3/1, MIDC Latur - 413531	Mr. Amit Loya, Director	---

Sr. No.	Name	Company Profile	Address	Contact Person	e-mail
31	Charoen Pokphand Seeds (India) Pvt. Ltd	Corn Seed producing company, premium quality, with poultry feed manufacturing Unit	12/1, 4th Floor, Srinidhi Landmark, Opp New Thippasandra Post Office, New Thippasandra, Main Road, H.A.L, III Stage, Bangalore – 560 075 (KA)	Mr. Mahesh Despande, Manager	maheshcp-seeds@gmail.com
32	Octagon Foods LLP	Manufacturer of all types of Pulses & Dal	Plot No. E-1, Addl. MIDC, Latur – 413531	Mr. Sunil Kalantry, Director	sunil@octagonfoods.co.in
33	Ravi Pickles & Spices India Pvt. Ltd.	Ravi Masale is the largest producer processor and distributor of Pickles and Spices all over Maharashtra. Ravi Masale is into manufacturing of blended Spices, Pickles, Instant Mixes and Papads etc.	Plot No. P-37, Service Industries, Cidco, Aurangabad.	Mr. Nikhil F. Jain, Director	nikhil@ravimasale.com
34	ADM Agro Industries	ADM's principal business is the processing of oilseeds into edible oils, animal feeds and feed ingredients. Also market a range of ADM food ingredients to leading food manufacturers, provide animal nutrition products to poultry and dairy farmers, originate and trade corn and wheat, offer cargo services and warehousing facilities for businesses; and operate a training and incentive program to assist Indian farmers improve crop quality and increase yields.	G-75 to 86, MIDC Industrial Area, Latur – 413 531	Mr. Amol Dhawan, Procurement Dy. Manager	amol.dhavan@adm.com
35	Ashvina Trading Company	Exporter of fresh fruit, vegetables & Foodstuff	Shop No -9, Hastagiri Apt, Ashok Chakravarti Road, Kandivali (E) Mumbai – 400 101	Mr. Riday Bhuptani, Chief Operating Officer	riday@ashvinatrading.com

Sr. No.	Name	Company Profile	Address	Contact Person	e-mail
36	Sahyadri Farmers Producers Company Ltd.	Exporter of all fresh fruits & Vegetables, Processed products	Survey No. 1102/8, A/p – Adgaon, Behind Police Head Quarter, 422 003	Mr. Vilas Shinde	shrikant.kulkarni@sahyadri-farms.com
37	Nilons Enterprises Pvt. Ltd.	Nilon's has a very wide range of quality products including Pickles, Spices, Papads, Tooty-Fruity, Sauces, Vermicelli, Macaroni, Pasta, Tomato Ketchup and Jams. Nilon's products not only have a dominant pan-India presence but are also exported globally to Japan, France, U.S.A., South Africa, Dubai, Saudi Arabia, Malaysia, Singapore, Australia and Canada.	Sundarban Complex, 2nd Floor, Survey No. 131/1A/5, Near Ganesh Dutta Temple, Baner- Balewadi Road, Baner, Pune – 411 045	Mr. Deepak Sanghavi, M. Director	rajeev@nilons.net
38	Capricorn Foods Ltd	Capricorn Food Products India Ltd., is a food processing company with both export and domestic operations. It manufactures Tropical Fruit Pulp / Purees and Concentrates, Bulk Frozen, IQF Fruits & Vegetables and Fruit Juices as per customer requirements	Gat. No. 207, 211, 213, Village – Jaitapur, Tal. Chandwad, Dist. Nasik	Mr. Sandip Rajput, Procurement Manager	sandip@gonglu.com
39	Go for fresh	Go4fresh.in is the retail venture of Fresh Produce Value Creation Services Pvt. Ltd.	Turbhe, Mumbai	Mr. Maruti Chapke	contact@go4fresh.in
40	Godrej Agrovet Limited	Purchaser of Maize, manufacturer of Poultry feed	Plot. No. 18, Jivandhara, Menekshanager, Near Jande Saw Mill, Nasik Pune Road, Dwarka, Nasik - 422001	Mr. Satish Gholap, Executive Purchase	sd.gholap@godrejagrovet.com

Sr. No.	Name	Company Profile	Address	Contact Person	e-mail
41	MERA KISAN Pvt. Ltd. (A Mahindra Initiative)	Retailing of all types of fresh fruits & Vegetables in India	S N 78/1/2, Waranasi Society, Pune Road Behind Gokul Nagar, Warje, Near To Rahul Society, Pune - 411052	Mr. Prashant Patil (CEO) & Mr. Amar	amar@merakisan.com
42	Bajaj Rice Mill	Bajaj Rice mill is one of the largest rice mills in Sindhudurg with over 360/MT per day milling capacity with 200/MT total output of rice per day.	Kudal, Sindhudurg	Mr. Nitin Mayekar	bajaj@bajajagrofoods.com
43	Hershey India	Hershey India Private Limited manufactures and markets beverages, confectioneries, and syrups. It offers various flavoured fruit drinks, pulps, nectars, purees, juices, and soymilks; flavoured lollipops and candies; and chocolate and strawberry syrups	Chemtex House, Hiranandani Gardens, Powai, Mumbai, Maharashtra 400076	Ananda Kumar	anandakumarv@hersheys.com
44	Vishnu Rice Mill	Manufacturer of all type of Rice	Fulchur Peth, Gondia, Maharashtra 441601	Deepak Mundle	bhandararicecluster@gmail.com
45	Mundle Rice Mill	Manufacturer of all type of Rice	Sonwari Ward Pauni, Bhandara - 441910, Behind Arban Cooperative Bank	Swapnil Mundle	bhandararicecluster@gmail.com
46	Saibaba Rice Mill	Manufacturer of all type of Rice Manufacturer of all type of Rice Manufacturer of all type of Rice	Amgaon Road, Amgaon, GONDIA - 441902	Amey Hatwar	bhandararicecluster@gmail.com
47	Pundalikbaba Rice Mill	Manufacturer of all type of Rice	Pahela, Bhandara	Harshawardhan Harde	harshawardhanharde@yahoo.in
48	Bharat Rice Mill	Manufacturer of all type of Rice	Gat No 446, At-Pahela Ta-Bhandara	Dr. Ulhas Harde	harshawardhanharde@yahoo.in
49	Vairagade Bandhu Modern Rice Mill	Manufacturer of all type of Rice	At.G.No.327 Shrinagar, Bhandara	Ramchandra Vairagade	bhandararicecluster@gmail.com

Sr. No.	Name	Company Profile	Address	Contact Person	e-mail
50	Sneha Foods Pvt. Ltd	Manufacturer of Poultry feed from maize & Soy-bean	Survey No. 139 To 143, Mahakurla Village, On Padoli To Ghuggus Road, Chandrapur-442505, Maharashtra, India	Rajeev Shrivastav	rajeevsrivastava@snehafoods.com
51	Suguna Feeds Pvt. Ltd	Manufacturer of Poultry feed from maize & Raw rice	Wardha Rd, Ujwal Nagar, Manish Nagar, Somalwada, Nagpur, Maharashtra 440025	Janakiramana	janakiramana@sugunafoods.co.in





COMPLIANCE FOR MARKET LINKAGES : TRACEABILITY

Highlights

This chapter highlights the importance of a tracking and tracing system. Tracing is a backward process where origin is identified whereas tracking is a forward process where end users and trading partners are identified.

Traceability is the ability to verify the history location or application of an item by means of documented recorded identification. It is the key to increase buyers' confidence and encourage transparent relationships with small land holders to achieve global food security.

Traceability has the benefit of

- Increased insight of supply chain vulnerabilities
- Improvement in operations and engagement
- Ensured compliance and safety to consumers
- Improved business functions (forecasting, response time etc.)

At the farmer level, traceability takes many shapes. As systems mature, costs decrease; physical (sacks/bags/ product) and administrative (contracts/receipts) traceability grows clearer; tagging, marking, stamping, and bar-coding evolve; operations, communication, and engagement across communities and companies improve; and consumers are able to more accurately trace—and trust—their purchases.

A case study, traceability success story, is discussed in this section. Amarsinh Agro PC, an FPC supported under MACP Program, handling tur, urad, onion and pomegranate has tied up with Walmart, Future Group, Big Basket, Tasty Bites, SFAC and NAFED, for sale of their produce.

After detailed discussions with the Future Group procurement team members, FPC's board members organised several meetings with their shareholders and Future group members at farm level as well as at offices of both parties. Consequently, a consignment to supply 100 MT of red onions 50 mm size was awarded to Amarsinh Agro PC. The negotiations involved supply with adoption of good traceability method (i.e. upto individual farmer) with use of packing material lino and jute bags (50 kg) and colour code index. At the time of procurement, it is necessary to select the farmers' produce for packing as per order requirement (and specifications) and delivery schedule. In this regard, it was essential to allocate (per day) the colour codes of lino bags for individual farmers. Per day (date wise) the allocated single colour was entered into the inventory book against each individual farmer's account contributing their produce to supply. During loading of vehicle, total number and weight of produce under each colour code were duly recorded. Then this data was entered in the name of individual farmer's account to supply. The entire consignment was now easily traced on the basis of colour of lino bag, date of loading and upto the individual farmer. At the time of unloading, if the buyer may have any queries/ remarks/ suggestions (regarding size, colour, weight, etc) about produce under specific colour code, same was be immediately referred/ resolved with traced individual farmers. Further, the remarks/ suggestion by the buyer helped in corrective course and improvement in next consignment.

7.1. Introduction

Tracing is basically a backward process where origin is identified by history or records in the supply chain and tracking is the forward process where end users and trading partners are identified by location in the supply chain. While both term provides the visibility to the supply chain tracking and tracing system must be connected with physical transportation system and information system.

Traceability is the key to buyer's confidence and transparent relationships with smallholders to achieve global food security.

It includes the following three aspects -

1. The consumer (all of us)
2. The Company (supply Chain owner/operator)
3. The community (networks of smallholder farmers)

7.2. Benefits of Traceability

1. Enhances Visibility: Increased insights of the supply chain reveals vulnerabilities, strengths and areas for improvement.
2. Improves Operations and Engagement: Data collected informs the decision-making process, program design, and how communities, companies, and consumers communicate with one another.
3. Ensures Compliance and Safety: Oversight confirms adherence to standards and regulations. During recalls, traceability expedites critical identification and segregation measures.
4. Links Communities to Consumers: Transparency along the value chain from “farm to fork” allows us to make informed choices—to know where our foods come from, how they were farmed and sourced, what goes into them, and who plays what role along the way.
5. Traceability systems are likely to: Increase consumer confidence, improve business functions (record keeping, inventory, forecasting, response time), decrease waste, fraud and abuse, increase productivity, accountability, and the flow of information

There is no “one size fits all” solution, so in order to meet regional and industry-specific standards and regulations, companies employ a range of strategies to streamline traceability. Not only does this provide insight into the movement of goods through the supply chain, traceability systems provide companies with valuable insight into direct and indirect risks, quality, yield, and volume data that inform sourcing design and supplier engagement (read: training/standardization) to name a few.

7.3. The Smallholder Farmer Perspective

This is where the farm-to-fork concept comes into play. From the perspective of an agrarian society, smallholder farmers linked to buying stations can more effectively communicate harvest dates, location, and volume prior to transportation to buying stations or storage for pick up/purchase.

At the farmer level, traceability takes many shapes. As systems mature, costs decrease; physical (sacks/bags/product) and administrative (contracts/receipts) traceability grows clearer; tagging, marking, stamping, and bar-coding evolve; operations, communication, and engagement across communities and companies improve; and consumers are able to more accurately trace and trust their purchases.

7.4. Success story of Farmer Producer Company (FPC) with traceability system

Profile of Farmer Producer

Amarsinh Agro PC, an FPC supported under MACP Program, handling tur, urad, onion and pomegranate has tied up with Walmart, Future Group, Big Basket, Tasty Bites, SFAC and NAFED, for sale of their produce.

After detailed discussions with the Future Group procurement team members, FPC's board members organised several meetings with their shareholders and Future group members at farm level as well as at offices of both parties. Consequently, a consignment to supply 100 MT of red onions 50 mm size was awarded to Amarsinh Agro PC. The negotiations involved supply with adoption of good traceability method (i.e. up to individual farmer) with use of packing material lino and jute bags (50 kg) and colour code index.

Working Model

At the time of procurement, it is necessary to select the farmers' produce for packing as per order requirement (and specifications) and delivery schedule. In this regard, it is essential to allocate (per day) the colour codes of lino bags for individual farmers. Per day (date wise) the allocated single colour is entered into the inventory book against each individual farmer's account contributing their produce to supply. During loading of vehicle, total number and weight of produce under each colour code are duly recorded.

Then this data is entered in the name of individual farmer's account to supply. The entire consignment can now be easily traced on basis of colour of lino bag, date of loading and upto the individual farmer. At the time of unloading, if the buyer may have any queries/ remarks/ suggestions (regarding size, colour, weight, etc) about produce under specific colour code, same can be immediately referred/resolved with traced individual farmers. Further, the remarks/ suggestion by the buyer help in corrective course and improvement in next consignment

Use of tools for Traceability Systems in Agro Industry

Characteristics of traceability systems

A traceability system is the totality of data and operations that is capable of maintaining the desired information about a product and its components through all or part of its production and utilization chain (ISO 2007). A traceability system records and follows the trail as products and materials come from suppliers and are processed and distributed as end products (ISO 2005). Therefore, the basis of all traceability systems is the ability to identify things that move along the supply chain. The basic characteristics of traceability systems are as follows:

1. Identification of units / batches of all ingredients and products
2. Registration of information on when and where units / batches are moved or transformed; and
3. A system linking these data and transferring all relevant traceability information with the product to the next stage or processing step.

These characteristics, i.e. Identification, information and the links between supply chain participants are common, irrespective of process or product involved. However, the traceability systems may differ in the amount of information recorded, how far (back or forward) the system tracks the information and the degree of precision with which the system can pinpoint the movement of a particular product.

In practice, traceability systems are record keeping systems that show the path of a particular product from suppliers through intermediate steps to consumers.

Traceability systems may identify other information (e.g. country of origin, species and best by date) that is associated with the product. Traceability systems range from paper-based systems to use of bar coding and Radio Frequency Identification Devices (RFID). Technologies on automatic identification and data capture allow data to be captured at minimal operating cost.

Traceability tools and technology solutions

Automated data collection removes much of the time and expenses required for data processing and maintenance. Gathering information described in the previous section for large operations manually is time consuming, because workers must first record the information at the point of activity and then relay this information either manually or transcribe and enter the data into the computer system. This can lead to risks of recording the information incorrectly. For example, errors occur in 36% of consumer-packaged goods orders according to a study by the Grocery Manufacturers Association (GMA) in the United States. Such errors lead to inventory inaccuracies, and stock ruptures.

Therefore, most traceability initiatives rely on technologies to provide efficient, accurate ways to track and trace products and their movement across the supply chain. This includes technology for product identification, information capture, analysis, storage and transmission of data as well as overall systems integration. Such systems include hardware such as measuring/sensing equipment, identification tags and labels, with software. Data collection using tools such as bar code and RFID are exceptionally accurate (>99%). These tools scan, record product codes, lot numbers, invoice data, order numbers, and other information in less than a second.

• Barcodes

A barcode is an optical machine-readable representation of data relating to the object to which it is attached. Barcodes systematically represent data by varying the widths and spacing of parallel lines (1D) or rectangles, dots, hexagons and other geometric patterns in two dimensions (2D). Barcodes originally were scanned by special optical scanners called barcode readers. Later, scanners and interpretive software became available on devices including desktop printers and smartphones.

Product traceability initiatives use a Global Trade Item Number (GTIN) to achieve traceability. A GTIN includes a GS1 company prefix and a unique item reference number compatible with Universal Product Code bar codes, and RFID or human readable codes.

GS1 is a neutral, not-for-profit, international organization that develops and maintains standards for supply and demand chains across multiple sectors. GS1 works with communities of trading partners, industry organizations, governments and technology providers and responds to their business needs through the adoption and implementation of global standards.

• Radio Frequency Identification Device (RFID)

RFID is technology which inserts a chip capable of being identified through the frequency of radio waves emitted. Certain RFID devices even have a memory function (that stores data) which enables greater information transmission. RFID devices are either active (can send electronic waves) or passive (can only reflect electronic waves from a RFID reader).

In many cases, apart from using paper tags or brands on cattle, RFID tags can also be used for the purpose of their automatic identification. The paper tags, brands and RFID tags all function as an identifier in such systems. The function of a traceability system is to catch and identify such identifiers across the supply chain. Traceability system can

identify which is/was/had been the location of specific item and what course such item follows/followed/had followed automatically. To realize such a function, tracking systems collect data strategically.

- **Wireless Sensor Network (WSN)**

A wireless sensor network (WSN) is a spatially distributed autonomous network of sensors to collect and monitor data from physical or environmental conditions such as temperature, sound, pressure, etc. and to cooperatively pass their data through the network to a main location. The more modern networks are bi-directional, also enabling control of sensor activity. Additionally, more advanced technologies may also be used, such as Geographic Information System, Global Positioning System, Remote Sensing, etc.

Following modern traceability systems are currently being used across Indian food industry and other sectors:

- **Alphanumeric codes** : Traditional food deliverymen have moved forward into using a system of alphanumeric codes printed on reusable containers for easily identifying and supplying fast service to their customer. Alphanumeric codes are a primarily combination of the alphabetic and numeric characters of different sizes, which are generally found on product labels.
 - **Hologram** : A hologram is a physical structure that diffracts light into an image, while it refers to both the encoded material and the resulting image. It is an effective product authentic solution which empowers the consumer, brand owners and government authorities to easily identify genuine products as against fakes.
 - **Barcode in India** : Major food processing companies including the Dabur Food, Godrej Beverages And Foods, Amul, Hindustan Unilever, ITC, Kohinoor Foods, Mother Dairy and Venky's India, all are using the barcode and 2-D quick response (QR) code techniques in order to develop an effective authentic product solutions, while assisting to build confidence amongst customers. In addition, the growing retail sector is also responsible for emerging the segment, by continuously asking distributors, manufacturers to adopt the barcode system for their products. Recently APEDA adopted the GS1 standards, while most of the more visible and useful applications have been achieved through the usage of GS1's product identifiers in barcoding for Grapenet, Anarnet, and Tracenet. Additionally, APEDA, an agro trade promotional body of the Government of India, and has already been providing traceability services to improve the confidence of importing countries in Indian agricultural products. Barcode is an openly machine-readable data which is printed over the objects, whereas by means of electronics barcode readers can easily encode, store and recall information.
 - **Radio frequency identification (RFID) in India** : Currently in India, RFID technique is being utilized by several dairy industries, including Amul dairy, which uses RFID tagging for milk yielding animal on their Anand farm in Gujarat state; Chitale dairy, which uses RFID tagging for tracking and storing information relating to health issue; and Govardhan dairy, which uses RFID tagging for identifying their cattle by numbers, both from Pune, Maharashtra state.
- In India, both domestic and foreign retailing players like Wal-Mart, Metro, Reliance, Food Bazaar, Tata Sons, Future Group, and Bharti, have already taken steps towards implementing RFID technology with suppliers.
- **Document-based (paper/electronic documents) traceability system in India** : Majority of smaller industries and producers are focused over simple pen and paper for reporting, stock information and communicating data with partners in supply chains. This involves manually recording product information like product lot number, harvest date, product receipt/ shipping date, quantity, ingredients, etc. in the record handbook.

Manual processes are not only time consuming but also may lead to inaccurate recording of data due to human errors. Errors may happen in recording either one or more data sets with respect to source location, product quantity and other parameters. Further, user is unable to swiftly transfer information among partners in the food supply chain due to lack of electronic recording and reporting system.

Several Indian Software firms like Infosys, Logisoft, Tata consultancy service (TCS), and Tech Mahindra, are assisting companies towards using traceability in form of Enterprise Resource Planning (ERP) systems, that can be used for storing data and inventory control, warehouse management, accounting, and asset management. ERP systems can read standardized data from barcodes and RFIDs, including global trade item numbers (GTIN) and global location numbers (GLN).

- **Nano technology in India** : India is rapidly progressing in the field of nanotechnology, yet, currently it is difficult to estimate its impact due to unavailability of data and reports from leading Indian food companies and laboratories, which include Adnano Technologies, NanoBio Chemicals, NanoShel, NanoXpert Technologies, Sisco Research Laboratories, Quantum Corporations, DaburPharma, Meda Biotech, and Velbionanotech.
- **Nuclear technique in India** : The basic feature of the nuclear technique is to determine of food provenance. Nuclear techniques like genomic and isotopic, are both at nascent stage in India but consistently going ahead. As reported, in short time Indian basmati rice will acquire Geographical Indication(GI) tag, which is used to identify the origin, quality and other characteristics of products(i.e. in this case, basmati rice cultivated in the region of Northern India).
- **Information and Communication Technology (ICT)** : Several publications have appeared in recent years documenting the emerging Information and Communication Technology (ICT) in India. ICTs have become very popular and providing easy solution to farmers, traders, suppliers and manufacturers too. Notably, ICTs give fast, reliable, efficient service and real time information in terms of quality and quantity of the agricultural produce to be marketed. With use of ICTs, farmers can easily forward and share the information with other partners and or system and solve any information based problem in shortest possible period. With Indian agriculture sector progressing rapidly on this front, many private as well as public sector firms are upgrading with ICT enabled initiatives.

Challenges in implementing traceability systems

Following challenges were observed during adoption of traceability systems by FPCs:

- **Multiple requirements** - In the simplest domestic or nearest markets or even in export chains, fresh fruits and vegetables or food products change hands multiple times. As a result, fully traceable documentation of produce/food product movement quickly becomes very complicated. Further, each buyer may also have his own requirements in terms of size, weight, colour, variety, maturity indices etc., including slightly different documentation that often results in duplication or higher time-consumption. This problem is often cited in fresh product supply by retail industry in India. Small and marginal farmers are able to supply only limited quantities of produce (owing to their small and fragmented land holdings) and hence aggregation through several farmers affects quality parameters (due to lack of standardisation).
- **Mixage** -Traceability requirements are often burdensome for producers, where the produce of small operators is often mixed before dispatch to retail outlets. Record keeping obligations can also prove to be exces-

sively difficult for them to comply with. There are some immediate operational disadvantages to traceability systems. The problem of “mixage” is one of them. Raw agricultural commodities are often mixed shortly after harvest. This is done to build small quantities into exportable or retail chain dispatch quantities. “Mixage” takes place either at FPC’s CFC (Common Facility Centre) or at trade warehouses or in markets. Maintaining the quality of traceability through “mixage” systems can be onerous. The requirement to know the processes to which a raw material has been subjected can limit the number of potential suppliers to those with the size and ability to have effective traceability systems in place. Small scale producers often cannot guarantee the provision of traceability or the record keeping on the maintenance of standards which go with same. In general, traceability systems favour large scale producers and vertically-integrated enterprises. The amount of information which must be stored and available for immediate review is considerable. If the traceability system is being introduced as a means of showing that certain standards are being met, then it is necessary to be in a position to show how those standards are being implemented. Undoubtedly, these are additional costs. It is arguably easier to manage traceability systems within single enterprises where the information is available in a single format to all participants in the production process from seed to farm and consumer.

- **Skills and implementation** – FPCs aiming to export to lucrative markets must have a reliable system for collecting and presenting the necessary information demonstrating compliance with buyers’ requirements. However, for fresh fruits and vegetables, food supply chains in developing countries rely on many small-holder farmers. Related support associations may not have the capacity to provide the necessary orientation and training that producers would need to create traceability documentation and to set in place the requisite systems and processes. It includes lack of awareness about the traceability system and non-availability of hardware which is required for traceability system.
- **Cost** – Traceability cost always moves towards the higher side. Due to high costs, FPCs are averse of adopting traceability systems. Traceability related costs include services, technology and software costs, changes in processes (adoption cost), training and ongoing operating costs. These costs can be a significant burden on an FPC. However, viewed as an investment in process improvement, and applied collectively across FPC in a supply or value chain, traceability can provide substantial benefits.
- In addition to the major challenges above, other issues also affect the adoption of traceability systems in agro produce:
 1. Literacy levels
 2. Lack of storage infrastructure (System) or facility
 3. Type of Commodity – Perishable or highly perishable
 4. Distance from main market or delivery point
 5. Disease and Pest attack (including Weather Parameters)
 6. Financial health of an FPC
 7. Final rate of the finished product





TECHNICAL ANALYSIS OF A PROJECT

Highlights

This chapter emphasises on imparting the skill of technical analysis. It is important to learn about critical technical issues in project and product selection technology assessment, production programme and plant capacity. It is important to estimate manpower requirement, plant layout and cost of machinery.

The following things must be taken care at the time of technical analysis of a project

- Technology choice
- Production programme
- Plant capacity
- Manpower Requirement
- Selection of location
- Layout Plan
- Pollution control and waste disposal

8.1. Introduction

The objective of this chapter is to impart the skill of technical analysis. The learning of critical technical issues in project and product selection, technology assessment, production programme and plant capacity are important.

It highlights options to calculate the manpower requirement, plant layout, and estimation of cost of machinery. The emphasis on importance of pollution control and consequences for the environment is highlighted.

8.2. Critical Technical Issues and Product Selection

Technical coefficients are an important input. There are such questions such as input-output relationship between selected products, shelf life of a product and local climatic conditions – answers to which must come from technical experts.

8.3. Technology Assessments, Production Programme and Plant Capacity

8.3.1. Technology Choice (often a function of the investment potential of an FPC)

Selecting appropriate technology and supplier is most critical.

Poor Technology and Equipment Selection: Breakdown of machine during processing

An FPC in the Eastern region of Maharashtra was processing tur (pigeon pea) for a client based in Nagpur. Based on an approved sample, a total consignment of 18 tonnes of tur (cleaned and graded) was to be delivered next day. The order was critically important to the FPC as the price offered for cleaned quality was remunerative and much higher than the market price. However, after processing about 13 tonnes, the grader machine faced a breakdown which led to a halt in processing. In order to adhere to their purchase order condition of supply of

cleaned and graded supply, the FPC brought in some more labour to manually clean the material and pack the same. This peculiar situation led to the final consignment not matching the quality of approved sample. In lack of machine grading, approved tolerance levels of immature grains and foreign material could not be adhered to by the FPC; the final consignment delivered was about 16 tonnes, about 2 tonnes short of demanded quantity. (Due to breakdown the FPC could process only about 3 tonnes manually); there was also a delay in delivery by 2 days. The market prices in these 2 days saw major downward movement.

The above situation led to loss to client and hence led to his dissatisfaction. It is necessary that FPCs select machinery and equipment carefully based on several aspects:

Purchase of renowned and preferred brands of machines : It is recommended that FPCs procure machines from renowned suppliers who may also be preferred for good after-sales services.

Existing Customer reviews : FPCs could also speak with existing customer base of suppliers to gauge their experience of machine breakdowns, timely resolution, timely replacement of faulty parts, etc.

Life Expectancy : Before purchase of machinery, FPCs should ensure that machine has desired life expectancy and such undertaking need be procured by supplier in writing. In case of breakdown (under normal conditions yet in early years of machine operation) supplier could be held liable for replacement or damages.

Local Spares and Service Center : It is recommended to check with supplier on proximity of his Spares and Service Center before making purchases. Ideally, FPCs should look for assurance of shortest possible resolution time and spares delivery.

Regular maintenance : FPCs should regularly check machines for wear and tear and make necessary replacements on time. Regular oiling/greasing of bearings, other moving parts should be adhered to as per instructions of machine supplier.

In-house Fitter/Maintenance Engineer : It is recommended that FPCs employ a fitter in-house so as regular maintenance and breakdown resolution could be ensured within shortest possible time.

Annual Maintenance Contracts : Ideally, FPCs could opt for AMC contract with supplier or competent third party to ensure avoiding breakdowns.

Renegotiating of contract with buyer (in this illustration, buyer of tur) : It is only appropriate and highly recommended for FPCs to inform the buyer of such problem immediately, renegotiate contract and delivery terms (if required).

8.3.2. Production Programme

The production programme may be described and justified in relation to:

- Market requirement and marketing strategy
- Input requirements and supply programme
- Technology and economy of scale in the sub-sector – low Break-Even (BE)
- Minimum economic size and equipment constraints.
- Resource and input constraints.

8.3.3. Plant Capacity

The following points must be considered in order to determine the plant capacity to be set up:

- (i) Investment related to various sizes and investible position/preference of an intrapreneur/FPC warehouse
- (ii) The minimum economically viable size of the plant
- (iii) The preferred/common plant size in existing small-scale enterprises now functioning
- (iv) The size of the market and outlook for its growth
- (v) Benefits and concessions/holidays offered by the Government
- (vi) The cost of expanding plant capacity at a later date vis-à-vis that of establishing a larger sized plant

8.4. Estimation of Manpower Requirement, Selection and Layout

8.4.1. Manpower Requirement

People are required for the following purposes:

- Production (skilled/semi-skilled workers)
- Supervision (technicians)
- Administration, sales and miscellaneous work (staff)

It is important to analyse workload and arrive at a gross estimate of manpower need.

8.4.2. Selection of Location

How will one go about location/site selection? Under the first stage, identify two or three such locations. Also identify one or two sites at each location.

A checklist may be employed:

- (i) Physical infrastructure position (power, water, road etc.)
- (ii) Commercial infrastructure position (telecommunication, banking, etc.)
- (iii) Social infrastructure position (housing, health, etc.)
- (iv) Financial incentive position (investment subsidy, income-tax concession, etc.)
- (v) Site-specific considerations (land price, etc.)

Sources of Information on Location

Some sources are:

1. Industrial Estate Officials
2. Revenue Department Officials
3. State Electricity Board
4. Public Works Department
5. Office-Bearers/Key Members of Local Industry Associations
6. Officials in Bank/State Financial Corporation
7. Officials in District Industries Centre
8. Panchayat Officials
9. Town and Country Planning Authorities.

8.4.3. Layout Plan

A layout plan must be decided. That is, where exactly each facility – raw material, storage, individual machines, packaging, finished goods storage, quality control unit – will be located.

The space for each of these purposes must be worked out. The distance between one facility and another or one machine and another must be fixed.

The flow of production process and space requirements for material handling and manpower requirement determine the layout. This will help to determine the gross built-up area for the enterprise.

8.5. Pollution Control and Waste Disposal

The State Pollution Control Boards have described norms, policy and procedure to treat pollutants generated by industries. In some cases of non-polluting industries an application form has been prescribed to obtain 'No Objection Certification'.

It is necessary to make sufficient provision in the cost of the project to establish the facilities to treat and dispose of the waste. The location study should consider the extent of effluent discharge and the possible manner of disposal at alternative locations.

8.6. Various other policy/regulatory stipulations may have to be adhered to. For instance:

Export (Quality Control and Inspection) Act, 1963

The Export Inspection Council under the Ministry of Commerce is responsible for the implementation of this Act under which a large number of exportable commodities have been notified for compulsory pre-shipment inspection. The quality control and inspection of various exports is pursued in key production centres and ports of shipment. Other organisations are also recognised as agencies for inspection and/or quality control in some cases.

Bureau of Indian Standards (BIS)

The activities of BIS are two fold, viz. (a) formulation of Indian standards in the case of many sectors, and (b) implementation by promotion and through voluntary and third party certification system. BIS has on record standards for most products. These standards in general cover raw materials permitted and their quality parameters, hygienic conditions under which the product is manufactured, and packaging and labelling requirements. Manufacturers complying with the standards laid down by BIS can obtain an 'ISI' mark and the logo is to be exhibited on the labels.

Some common Challenges: Technology Selection to Operationalisation

Right technology selection is the key to success of an FCSC; for that matter for any agro or food processing project. The selection process involves study of: input-output ratio(yield) of the technology in comparison to other prevailing technologies, capacity, cost of technology, brand image of supplier and technology, after sales services of supplier, cost of bought out items (if any), layout, engineering, machine footprint, power consumption, labour (skilled/unskilled) requirement and availability, returns on investment, ease of operations, and various other factors.

Several technologies like grain cleaning and grading plant, dal mill, rice mill, feed mill, etc. can be procured by FPCs or entrepreneurs at various ranges of investments. For example, a mini dal mill could be procured in range of mere 1 Lakh to even about 25 Lakh. The primary difference is the capacity and automation of plant which an intrapreneur need understand and freeze on basis of Company's operations, raw material availability, marketing abilities, etc. Impor-

tantly, while the cost of a low capacity plant may be lower, it is pertinent to also understand other major factors like yield, ease of operations, return on investment, ease in upgrading capacity, etc.

A major dal mill, rice mill or flour mill can involve investment in the range of Crores of Rupees. Choosing the technology in this range requires a thorough knowledge and study vis-à-vis mini capacity plants- which include assuring higher yield/recovery, advantage of economies of scale and thus the returns, marketing capabilities, etc. In this context, reviews of existing users are highly essential.

None the less, FPCs face challenges at various levels of technology selection and operationalisation. Few of them are listed as under:

- 1. Selection of appropriate site and availability of critical infrastructure :** To ensure sustainability and continuity of the project, FPCs prefer leasing land for a longer tenure (15 to 30 years) or even purchase of suitable land. However, several technical parameters affect this decision which include proximity to major markets, availability of power and water, clearances from local authorities, approach road, etc. On several occasions, FCSC sites are located in deep interiors of the rural villages. Such locations often do not have well-constructed approach roads. This, in particular, could create several limitations in inward and outward transportation, especially during the rainy season. On certain occasions, machine suppliers too have found it difficult to locally book cranes (due to lack of approach road or even unavailability of local vendors) for unloading of heavy machineries during installation. One important aspect is availing of power connection at lowest possible cost. Many FPCs who had their machines installed could not undertake trial run and subsequent operationalisation (in some cases for over several months) due to lack of power connection. The process of transformer installation, poles and line erection under schemes like DPDC could be time consuming and hence FPCs need to undertake their application for timely connection. Hence, it is recommended that FPCs undertake site selection on basis of the above and other factors that will affect the operations of their factory.
- 2. Inadequate planning or faulty layout :** One of the major aspects in technology adoption is understanding the process layout and designing the plant layout accordingly to ensure minimum material travel (also ensuring reduced material loss with leaner manufacturing process). To elaborate, the entry of raw material and exit of finished goods need be closer to related process. Incorrect position leads to increased use of labour for material movement. In certain cases, the intake pits in some FCSCs in grain cleaning plants were incorrectly placed and had larger capacity/footprint than required. This obviously means lower storage and movement space inside the plant. Similarly, certain plants have specific pre-installation requirements and hence construction/civil works need be executed keeping same in mind. To elaborate with example, vertical elevators or chimneys may require a specific shed height. Any deviation in this leads to unnecessary civil modifications and loss of time during installation phase. It is recommended that FPCs undertake layout design preparation with help of experts (architect/structural engineer) and finalize same with experts within company, industry participants and prospective machine suppliers.
- 3. Machine footprint and required storage space :** It is essential for FPCs to have a fair idea and planning about space required for machinery, men and material movement, adequate storage space and future expansion. To elaborate, some FPCs have invested in primary processing machines as well as secondary processing machines; for example- some FPCs have both machines for cleaning wheat as well as mini flour mill. While this does enable the company to gain higher remuneration through higher value added products, it also means lesser space in their small sized sheds to store raw material and finished goods and even inhibits further expansion of the plant. It is

recommended that FCSCs always have adequate space for material storage to ensure continuity in operations and safety of produce and finish products. Additional warehouse construction to increase storage space next to FCSC shed is highly recommended.

4. **Escalation in Civil works and Machine costs** : In order to ensure larger shop floor and storage space, some FPCs undertake construction of larger sheds. To elaborate with example, some FPCs involved in primary processing of oranges have built sheds of even 25000 to 28000 square feet area. Since oranges are high space consuming and bulkier commodity, the need for good amount of floor space even for storage is highly essential. Having said that, with capacity of only about 5 tonnes per hour, a well-constructed space of 10000 square feet could have been sufficient. Importantly, oranges are perishable and hence even storage for longer periods under normal conditions is not recommended. Hence, the strategy of the FPCs for such plant should be aggregating, processing and delivering in shortest possible time. In some cases, FPCs have rightfully also increased the pre-approved/ budgeted shed area to ensure ease of operations and expansion. Also, in some cases, FPCs have opted for higher quality columns and beams or even high RCC walls. Obviously, higher expenditure or escalation in civil works means higher initial contribution by shareholders. Machine costs quoted by suppliers mostly have a validity period. Notably, costs of machine components like steel, electrical, etc. are susceptible to change with market movement of these components. Obviously, procurement post such validity could lead to unnecessary escalations over approved budgets. It is recommended that FPCs optimize utilization of grants and shareholder contribution by limiting construction space as per utility and nature of produce. Also, procurement of machine could be undertaken within the validity period of supplier's quote. However, due to some administrative or other unavoidable reasons if there are delays in procurement, it is recommended that FPCs renegotiate contracts with suppliers to ensure minimum/no escalations in costs.
5. **Approved Cost of Technology and deviation in actual procurement** : Cost of technology procurement is central to FPCs decision. On several occasions, this has overall impact on pre-approved budgets of the FPCs project. For example, while seeking grant on machinery on any schemes like FCSC scheme for FPCs under MACP, the cost of machinery and the means of finance is pre-approved by the decision making committee. None the less, such procurement is generally done through tender process. The financial bid of the lowest bidder could be still be higher than the pre-approved costs.
6. **Change in specifications or procurement of critically important add-on machineries or accessories** : To elaborate with example, FPCs investing in grain cleaning and grading machines have procured primary multi-seed grader and gravity Separators. On several occasions, buyers in markets demand for further processed product (i.e. de-stoned grains). Investment in a de-stoner and its supporting equipment like elevators leads to further investment and contribution from FPCs shareholders.
7. **Costs of essential bought out items** : In terms of supporting infrastructure, technologies may be termed as 'plug and play' or 'ready to assemble'. For example, a standalone groundnut decorticator machine may not require any supporting accessories or even any specific civil work. It could be operated merely by plugging and operating; i.e. 'Plug and play'. Whereas, several agro and food processing machines require several supporting accessories which may (on turnkey basis) or may not be supplied by main machine supplier. For example, some FPCs already having dal/rice mill installed at their FCSC now look to expand with colour sorter technology. Importantly, most colour sorter suppliers only quote for and supply the colour sorting machine and not the supporting accessories which include colour sorter cabin, mechanical fabricated accessories like elevators, grain bins, support structure,

compressor and piping, invertors, cabling and controls. It is highly important that FPCs should obtain cost estimates of such supporting equipments in the planning phase itself which may otherwise lead to unnecessary escalations during actual procurement. Also, it is highly essential that such accessories need be calibrated with the operations of the main machinery (i.e. colour sorter in this case) without any additional costs.

8. **High initial capital investment vs. high operational costs** : To elaborate with example, FPOs investing in dal mills are required to condition and dry pulses for de-husking of seeds. The options vary from drying yard (for direct sun drying) to electric or fuel based to solar dryers. A large drying yard means reserving a large plot of open land with appropriate flooring. It also requires good number of labour force to unload, spread and load the material. However, this option has various limitations. To elaborate, FPO will have to reserve a sizable plot which could otherwise be used for other civil constructions like warehousing. Secondly, drying raw material in open is always susceptible to risks like sudden storms, rains and bird feeding and animal droppings contamination. On the other hand, an electric dryer may be suitable for mini sized operations but as capacity of plants increase fuel based (particularly wood based) dryers are recommended. This selection is highly important as it impacts the cost of operating the mill. In comparison of other existing technologies, non-conventional energy based driers like solar dryers are highly capital intensive (and hence not opted by FPCs), but can provide excellent energy cost savings leading to lower costs of operations in longer run.
9. **Pre-Installation requirements** : Several FPCs in Maharashtra have invested in grain cleaning and grading plants. Some preferred brands in this context include Padsons, GD Agro and suppliers of similar repute. Each supplier has his own set of pre-installation requirements. Installation of GD Agro machinery requires flooring to be complete before machines can be fitted on platform. Whereas, Padsons' installation requires only machine foundation to be complete; flooring is done only after installation of machinery. Any deviation in this leads to unnecessary civil modifications and loss of time during installation phase.
10. **Level of automation, power consumption and availability of skilled manpower** : Operational costs of FCSC units are largely dependent on power consumption and manpower costs. Some machines could be highly power consuming and thus lend sustainability risks. For example, some FPCs in paddy producing districts have invested in mini rice mills. In industry practice, to obtain white rice, bran need be removed through whitening and polishing process. Generally, in mini rice mills, the desired output is obtained through double polishers. However, polishers are high power consuming machines and hence at mini scale operation level increase the cost of production whereas market prices may not be as rewarding. Hence, single polisher with 10-15 hp load factor (or lower) is recommended.

Also, some of these FCSC units require manpower with relevant experience and skills to obtain desired output, run machine safely, optimize costs and reduce wear and tear. In rural areas, where these FCSCs are located, such skilled manpower is hard to recruit or even retain. Consequently, most FPCs have to recruit manpower that has to undergo comprehensive training from a relevant institute which obviously leads to initial training investment in such manpower. Further, it is essential that remuneration is attractive enough to retain (in difficult rural areas) such trained and skilled manpower.

Unskilled manpower is equally important yet available in scarcity due to migration of such labour to higher remunerative jobs in cities. Lack of manpower in immediate location means investment in either automated technology or in labour quarters and other infrastructure. Automation, obviously, may lead to higher capital and operational costs (owing to higher power/energy costs), which may also lead to sustainability risks at micro and small scale level units.

11. **Substandard quality of machine components and accessories** : One of the aspect which could negatively impact FCSC operations is substandard quality of components and accessories. In general, while seeking quotations from suppliers, FPCs request them to send ‘all inclusive’ or ‘turnkey’ quotation of technology. Often, FPCs negotiate on cost to suit their budget. Severally, machine suppliers quote for accessories like cables, motors and control panel unit which may not be of reputed make. Often, FPCs are not aware of benchmarks of such accessories or even machine internal parts and hence do not challenge supply’s quality. However, in practice, substandard components and accessories lead to problems like motor short circuit or premature burnout, wiring and panel burnout, etc. It is recommended that FPCs check and approve (with help of experts) the ‘make’ of internal components and accessories like machine electrical, pneumatics, servo motors, induction motors, cabling, etc. The specifications of tender and actual supply should be cross-verified through physical inspection and undertaking of supplier be necessarily obtained.
12. **Safety rules and licensing (if required)** : Any food manufacturing or food processing or packaging or distributing entity is required to obtain a food license under FSSAI. While some FPCs have obtained the license (or are in process), most have not applied for the license. As per the regulation, food business operators having turnover of 12 lakh or more are required to file annual returns as well. FPCs too need to comply accordingly. Some FPCs have invested in mini boilers (portable/stationary) which are fabricated by local manufacturers. Although, such boilers do not come under the purview of IBR license registration, their safety is still a concern as explosion could lead to severe men and material losses.
13. **Vehicle transportation** : Some FPCs(especially F&V based groups) have procured vehicle for raw material collection and marketing of value added produce. While own vehicle transportation offers several advantages including cheaper transportation for short hauls, it can be very expensive for long hauls as compared to some other competing modes of transport. Increase in costs of petrol/diesel also affects the industry. Traffic delays and bad weather could also impact on quality of perishable goods, as well as failure in delivery commitments. Accidents of the transport vehicle may cause severe men and material losses as well. It is recommended that vehicles are used for short distanced markets and frequent to and fro on same routes, maintenance is done on regular basis, vehicle and men are insured and road rules are followed.
14. **Pollution Control and Waste Disposal** : Since most FPCs are involved in primary processing of farmer produce, the mandates of ETP installation are generally not applicable. However, like any industry, FPCs too (unless exempted) are required to obtain Pollution Control Board’s ‘Consent to Establish’ before setting up of their unit as well as obtain ‘Consent to Operate’ on start of operations.





COST-OUTPUT-PROFIT RELATIONSHIPS IN AN ENTERPRISE

Highlights

This chapter helps to understand the relationship between cost, output and profit in a FPC enterprise and the importance of break-even point (BEP) analysis.

Break Even Point is the level of sales or activity where total revenue equals total cost. Leverage is the relative change in profits due to change in sales. It is essential to compare operating leverage among FPCs or firms in the same sub-sector, as some companies have higher fixed costs than others.

A sensitivity analysis of the business plan needs to be done by changing selling price, sales revenue, variable costs or fixed costs an enterprise overall BEP may be estimated by dividing total fixed costs by the contribution/output ratio (C/O ratio) for the enterprise.

A change in sales mix will not affect a FPC's break-even point and profit if each product has equal C/O ratio. However, a change in product-mix will change the break-even point and profit when products have unequal C/O or contribution over sales ratio.

9.1. Introduction

The objective of this section is to help understand essential concepts of business analysis in terms of estimation of break-even levels of activity and also various parameters affecting profit/risk and profitability.

9.2. Cost Structure and Break-Even of Enterprises

Relationship between annual revenues and costs with regard to output may be established by means of break-even studies.

A break-even level is the no-profit no loss zone or level of activity of an enterprise. It is that level of sales or activity where total revenue equals total cost.

The analysis of potential relationship between costs, production output, and profit in an FPC in the sector is equally important also its break-even levels of activity is critical, even at the stage of conceiving or expanding a project. This is so, particularly, with regard to its cost structure, viz. fixed and variable cost orientation.

Variable costs change in direct proportion to change in output while fixed costs remain constant regardless. Invariably, raw material costs, interest on working capital, wages paid to labour on daily-wage or piece-rate basis are variable costs. Expenses on rent, interest on term-loans, and depreciation are fixed costs.

'Contribution' is the difference between sales revenue or output and variable cost. Profit is estimated by subtracting fixed costs from total contribution. The break-even level in terms of units is attained when the number of units of a product sold creates sufficient revenue to cover total costs, viz. both fixed and variable costs.

Illustration :

As an illustration an enterprise produces a single product and sells the same at Rs. 50 per kg. The variable cost to produce one kg. is Rs. 32. The total fixed cost of the enterprise is estimated at Rs. 6,00,000. To break even, the enterprise should operate at that level of activity/capacity in which contribution should equal fixed costs in operation. The enterprise has capacity to produce 1,50,000 kg. per annum. Therefore, break-even is :

BEP (Break-even point)

$$\text{is therefore :} = \frac{\text{Fixed costs (Rs.6 Lakh) X 100}}{\text{Sales Realization (Rs. 75 Lakh) - Total variable cost (Rs. 48 Lakh)}} = 22.22\% \text{ of capacity.}$$

This amounts to about Rs. 16,66,500 as sales viz. 33,330 kg.

Once an enterprise has attained break-even activity, the difference between sales above break-even sales and variable costs are profits. Total fixed costs have been already covered at the break-even point. As we have seen in the section on product-mix and pricing decisions this concept has important implications in pricing.

Operating Leverage and Risk vs. Return Structuring of a business Plan

Leverage is the relative change in profits due to a change in sales. A high degree of leverage implies that a large change in profits occur due to a relatively small change in sales.

- An enterprise will have invariably higher operating leverage if total costs have a higher percentage of fixed costs vis-à-vis variable cost.
- Operating leverage increases with fixed costs.

Operating profit of a highly leveraged enterprise would increase at a faster rate for any given increase in sales. However, if sales (or margin on sales) fall, the enterprise with a high operating leverage would experience greater loss than an enterprise with a low operating leverage.

9.3. Effects of Changes on Profits

A plan must incorporate the fact that profits and its rate of increase or decline may be affected by the changes – increase/decrease, in any one or all of the following variables.

1. Selling Price
2. Sales Revenue
3. Variable Costs
4. Fixed Costs

These variables encompass all aspects in the context of structuring or managing a project, viz. in terms of finance, marketing, and production.

The impact of changes in variable costs on profits is direct if it does not cause any change in selling price or output. An increase in variable costs will increase the break-even point and reduce profits and vice versa. Other factors remaining unchanged, a fall in fixed costs will, however, lower the break-even point and raise profits and vice-versa.

9.4. Cost-Output-Profit Analysis for a Multi-Product Enterprise

In the case of a multi-product enterprise, the contribution for each product is estimated by subtracting its variable costs from sales revenue. The break-even point for each product may be arrived at only if the fixed cost for each product is established or apportioned.

An enterprise's overall break-even point may be estimated by dividing total fixed costs by the contribution/Output ratio (C/O ratio) for the enterprise.

The contribution of a multi-product enterprise, or C/O ratio, is the weighted average of the C/O ratios for all products that it manufactures or sells. Weights are accorded in relative proportion to each product's sales. The C/O ratio for the multi-product enterprise may also be estimated by dividing total contribution from all products by total sales.

Consider the illustration below :

Ruchi Food Products in Pune had the following financial performance as on 2017-18

Table 15 : Annual estimates of a multi-product enterprise

Item	Product 1	Product 2	Product 3
	Rs.	Rs.	Rs.
Sales	10,00,000	50,00,000	40,00,000
Variable costs	5,50,000	30,00,000	27,50,000

Fixed costs are Rs. 6,00,000. The Table below presents the indicative estimates of the enterprises break-even level of activity and C/O ratio.

Table 16 Break-Even and C/O Ratio for a Multi-Product Enterprise

Item	Product 1 (Flex seed chutney)	Product 2 (Groundnut chutney)	Product 3 (Lemon pick- les)	Total
Product-Mix	10%	50%	40%	100%
Sales Revenue (Rs.)	10,00,000	50,00,000	40,00,000	100,00,000
Variable Cost (Rs.)	5,50,000	30,00,000	27,50,000	63,00,000
Contribution (Rs.)	4,50,000	20,00,000	12,50,000	37,00,000
Fixed Costs (Rs.)				6,00,000
Net Profit (Rs.)				3100000
C/O ratio	45 per cent	40 per cent	31.25 per cent	37 per cent
B/E point for the enterprise (in terms of sales in Rs.)				$\left[\frac{6,00,000 \times 100}{100,00,000 - 63,00,000} \right]$ =16.21%

The enterprise's C/O ratio in the illustration above is 37 per-cent (viz. Rs. 37,00,000/Rs. 100,00,000). This is also the weighted average of the C/O ratios for the individual products.

Change in Product-Mix

A change in sales mix will not affect an FPC break-even point and profit if each product has equal C/O ratio. However, a change in product-mix will change the break-even point and profit when products have unequal C/O or contribution over sales ratios.

Let us assume that the enterprise changes its product-mix as indicated in the table below. The effect on break-even level of activity and profits would be as shown in the following

Table 17 : Effect on Break-Even Point and Profit due to Change in Product-Mix

Item	Product 1	Product 2	Product 3	Total
Product-Mix (New)	40%	50%	10%	100%
Sales Revenue (Rs.)	40,00,000	50,00,000	10,00,000	100,00,000
Variable Costs (Rs.)	22,00,000	30,00,000	6,87,500	58,87,500
Contribution (Rs.)	18,00,000	20,00,000	3,12,500	41,12,500
Fixed Costs (Rs.)				6,00,000
Net Profit (Rs.)				35,12,500
C/O ratio	45 per cent	40 per cent	31.25 per cent	41.12 per cent
B/E point (Rs.)				$\left[\frac{6,00,000 \times 100}{100,00,000 - 58,87,500} \right]$ =14.58%

The break-even point for the enterprise has fallen to about Rs. 14,58,000 from Rs. 16,21,000. The C/O ratio for the enterprise is estimated as 41.12 per cent. The enterprise's C/O ratio improved and BEP reduced because sales of less profitable or low C/O ratio processed food portfolios were shifted in favour of more profitable (high C/O ratio) product flex seed chutney. Thus, an FPC enterprise should focus on the production and sale of such products if the objective is to reduce business risk (break-even) even while increasing profits. This may involve evolving an ideal credit/discount stratagem to facilitate the same. Such aspects need be retained in mind while formulating a business plan. The importance of cost consideration cannot be gain said.

Need for effective cost management

An FPC in East Maharashtra supplied 170 quintals of Chickpeas (Gram) to a Nagpur based dal mill. The quality and specifications of consignment to be supplied were fixed during purchase order and price was fixed as Rs. 5500 per quintal. Importantly, the prevailing market price on the date of purchase order in Amravati Mandi was about Rs. 5250 per quintal. In a nutshell, buyer had agreed to pay a higher premium to the FPC for cleaned and graded supply. Additionally, all other costs like Mandi Cess, transportation, bagging material and unloading were borne by the buyer.

However, despite such favourable negotiations, the company suffered a loss in the transaction. The primary reason for such loss was inefficient production cost management which however could also be attributed to the company's lack of experience of such transactions then. The FPC wanted to extend maximum gains to its shareholders and hence it paid Rs. 5450 per quintal for procurement. Considering this, the company had maximum Rs. 50 per quintal to absorb costs of production as well as make some profit. The company incurred cost of about Rs. 55 per quintal for processing the raw material and about Rs. 30 per quintal on labour charges. Notably, competitors in same industry incur a total of about Rs. 50 per quintal on both these parameters put together. Additionally, procurement from farmers remains an important function in such transactions, wherein the producer company has 2 options; i.e. either recover processing and marketing charges (i.e. job work charges) from farmers or offer a purchase price which enables absorbing the costs. Losses also occur due to inefficient control over procured ma-

terial quality. In practice, if the foreign material and immature seed content is high in material supplied by farmer members, it will lead to losses. This is another reason the PC had to face losses. Another important aspect noted in the transaction was delay in delivery by about 3 days. Although prices of the commodity fell in the market, buyer still accepted delivery. This is a risky situation where either of the parties may realize losses due to speculation of a commodity's price in market. In the case of heavy perceived loss for buyer, he may opt out of contract and refuse delivery.

Following are some recommendations for effective cost management by FPCs:

- FPCs should try and procure raw material (particularly pulses and grains) from their farmer members with max 2-3 per-cent (average) impurities.
- While FPCs provide their farmers with earnings higher than market rate, it is essential they absorb costs (either by way of job work charges for aggregation, processing and marketing or by distributing profit after deduction of such charges).
- Labour charges should be optimized by reducing unnecessary material travel within premises. In this context, FPCs may understand practices in similar existing and successful units.
- FPCs could strategically source maximum raw material and other consumables at favourable market prices.
- FPCs could adopt strategies of cash or credit payment to its members. If supplying members are comfortable with credit payment within a specified period, a higher sum could be paid to incentivize. Alternatively, a lower sum could be offered for members seeking immediate cash payment.
- FPCs could strategically undertake more sales in the season to manage overall positive averages.
- FPCs should always deliver the goods on date of delivery mentioned in the contract. This also helps create a positive image of FPC in the market.
- FPCs scale of operation should be optimized to obtain advantages of economies of scale, wherein cost per unit of output would decrease with increasing scale.
- FPCs could focus more on leaner manufacturing process ensuring minimum wastage of men and material on shop floor.
- FPCs should examine their customers' motives for purchasing the company's produce; i.e. do they buy company's produce because of their low cost, high quality, unique look, or some other reason? By determining what is important to customers, FPCs can selectively attack elements which are not as important to reduce cost.
- Once buyers are comfortable with quality, delivery, price and other aspects, FPCs could negotiate long term contracts of supply, which in turn will ensure regular business as well as opportunity to realize positive average.





THE FINANCIALS OF A BUSINESS PLAN

Highlights

This chapter elaborates on the various components in the preparation of financials of a business plan.

To help in studying a potential from the financial angle, analysis of financial feasibility of a project or business plan is necessary.

The essential components of the financials of a business plan project report are:

- Project cost
- Means of finance
- Working capital assessment
- Capacity utilisation and income estimate
- Cash flow projections
- Projected financial statements and profitability analysis
- Financial ratio analysis

10.1. Introduction

The objective of this chapter is to help glean insights into the essentials of the financial aspects of a project report such as:

- project cost
- means of finance
- working capital assessment
- estimating cost of production and net income flows
- and, in preparing a project report with projected financial statements and profitability analysis.

To fully understand the nuances of each component in the preparation of a project report, it will be ideal to meet/interact with several working capital and term loan providers to understand their norms with regard to financing different aspects of a project.

It is necessary to understand practices and norms regarding various aspects such as working capital assistance and Debt Service Coverage Ratio (DSCR) required by financial institutions. They may also specify other parameters with regard to profitability and viability analysis from their point of view.

To the extent possible, study different project reports that may be secured from MSME-DI / leading financial institutions of the region.

- Most lending institutions have their own norms regarding the structure of a project report/business plan. This section therefore merely presents the methodology in preparing a 'business plan' than, merely, a prescribed 'bankable project report.'

The objective of the exercise is to build competence to independently analyse various factors and evolve and sustainably implement an appropriate business plan. Not merely for submission to a bank but for actual implementation.

The chapter also presents the financials of a business plan and a business plan format in the context of a micro/small unit.

10.2. Financial Viability of Preparation and Analysis

Analysis of financial feasibility of a project or business plan helps study a project's potential from the financial angle. Income, expenditure and profit projections are made till the period of repayment to financial institutions. A six to eight-year period could be ideal in many cases. Projections may be made in such a manner that capacity utilisation improves over the years viz. say 60, 70 and 80 percent in years 1,2 and 3 respectively.

Parameters such as selling price and cost of raw material may be changed every year. It is normally assumed that increase in costs over time will be matched with increase in selling price. And so, both can be assumed constant over the years. The following sub-sections introduce major components of financial viability preparation and assessment.

10.3. Project Cost

- Project cost comprises investment for establishing an enterprise. The significant elements of project cost are land and site development, building, machinery, other fixed assets, technical know-how expenses, preliminary and pre-operative expenses, including interest during construction period, working capital margin and contingency costs.
- It also includes certain administrative and financial expenses which are incurred before production starts. These are Preliminary and Pre-operative (P&P) expenses. They include rent/interest during construction, Pollution Board License, collateral related expenses like stamp duty, trial production expenses, deposits for utilities and processing fees of financial institutions.
- Contingency - provision made for escalation of cost of equipment, for instance, in the lag between plan preparation and project implementation.

These are the key components of project cost.:

Here, Land and Site development: Cost of land, legal charges, levelling and developing charges, fencing etc. Civil works: Factory building, office, warehouse, drainage facilities, etc. Plant and machinery: Price of machinery/equipment and excise duty, sales tax (GST), freight and installation costs. Other fixed assets: Furniture, office equipment like fax machines, vehicles, laboratory and pollution control equipment, diesel generating sets, etc.

Comparative quotations from several suppliers may be invited to convince lending institutions about cost of plant and machinery. Institutions, sometimes, specify 'acceptable' suppliers.

For valuation of land and building, lender offers loan against the 'book price' as per documents and not 'market price.' An FPC should know these aspects and work closely with lending institutions.

10.4. Means of Finance

The common means of finance are term loan, subsidy or equity. Repayment terms vary with institutions and with schemes.

Equity capital is promoters' contribution or money contribution by others in terms of deposits and unsecured loans. The minimum amount of promoter contribution, irrespective of such private participation, could be specified at a minimum 17.5 per cent of project cost by lending institutions.

10.5. Working Capital, Relevant Margin and its Assessment

Funds required to operate an enterprise is Working Capital. A certain minimum amount of working capital is permanently invested in business. The entrepreneur will have to contribute this fund initially. Working capital margin, which is included in the project cost, is estimated on the basis of the year when the enterprise breaks even. The estimation of this margin depends on projections of working capital needs:

- Projecting output over different years of operation
- Projecting raw material input needed and unit price of each input required to produce output and the amount of material an enterprise must carry, given first year production targets. For the latter, the 'lead' time between order placement and receipt should be considered. Enterprises in the food processing sector need to carry high raw material inventory, given the seasonality of production. Price of inputs vary drastically and enterprises need to stock up to reap advantage of favourable prices. The value of raw material, to be stocked, should be ascertained, as also that of other consumables and packing material to be stocked up.
- Projecting value of goods under production at any time. This will depend on the length of the manufacturing cycle. For such valuation, direct costs of raw material, wages and utilities should be considered. You may ignore depreciation, administrative and marketing expenses.
- Projecting the level of stock of finished goods. An enterprise producing in anticipation of demand, as do most processing enterprises, may carry substantial stock of processed/semi-processed finished goods. The quantity of such stock should be valued at cost, viz. direct and indirect, sans depreciation.
- Projecting total sales on credit in terms of duration or amount of outstanding receivables. Only production cost of sales is considered.
- Projecting the monthly wages and salary expenses, power/fuel, other utility related costs, administrative expenses, selling, and repair/maintenance expenses.
- The sum of components from the raw material value indicated in the second bullet point, to the last above, give the estimate of working capital requirement. A financial institution may refuse working capital support for expenses either on wages/salary or administrative expenses. Such policy may change with time. Around 60-70% support for most working capital components may be secured.

10.6. Support for Working Capital and Term Loans

To sanction a term loan, a term lender may ask the promoter to submit a sanction letter of a bank approving, in principle, a working capital facility for a project. The project appraisal pursued by a term lender is considered prior to such 'in-principle' sanction. A bank may still disagree on projections or capacity utilisation or profitability, and hence on support. Many enterprises are still-born despite receiving working capital support as they receive and accept less than requirements. MFIs like FWWB, Samunnati Finance and institutions like NABKISAN Finance and many banks offer both term and working capital loans. They offer composite loans.

An enterprise may also secure deposits or private loans at a certain interest but a lending institution invariably insists that such private loans remain unsecured in terms of assets of the project as they will be mortgaged to the lending institution.

10.7. Extent of Loan or Debt Financing: Norms and its Sanction and Disbursement

The extent of term loan that can qualify depends on norms of Debt-Equity ratio, minimum Promoter Contribution, policy of lending institutions about margin against specific components of project costs and the fixed asset coverage security margin for the lender.

A 2:1 debt-equity ratio may be acceptable to a lender. The term lender has a policy on contribution pegged between 15% to 22.5%. Component-wise norm policy about margin against project cost may vary over time between institutions.

Land, building, machinery, equipment and other assets may be mortgaged with the term lender as security. Lenders accept no security for working capital margin or preliminary/pre-operative expenses. The promoter may have to contribute as these assets cannot be disposed of to recover dues. The term loan is pegged at 30-40% less than the value of fixed and saleable assets. While a lender may offer extra loan against a cost overrun, assuming project viability is not affected, it is not responsible for delay in receipt of subsidy. A loan application of a lender will include standard questions about the components of a project report. There could be questions about promoter-profile and experience, financial strength, personal assets/liabilities. Also, the loan is disbursed in stages. It is necessary to study disbursement procedures and fund-position of the lender. The term lender may need collateral security besides the mortgage of assets and may include personal residence or other personal assets.

In some schemes covered under Credit Guarantee Trust Scheme of India, for manufacturing sector projects, term loans without collateral are feasible.

10.8. Capacity Utilisation and Income Estimate

- Raw material: Proportional to production quantity
- Consumables and packing materials: Depend on production quantity but not proportionately
- Power, fuel and utilities: Depend on production quantity but not proportionately
- Wages and salary: Partially related to production quantity
- Repairs and maintenance: Expense on plant, building and other assets; increase over time
- Rent, taxes and insurance: These are fixed expenses
- Administrative expenses: Fixed
- Selling expenses: Include fixed expenses as advertising and salesmen's salary as well as variable expenses like commission to dealers
- Interest on term loan: Outstanding loan

Loan repayment plan is fixed by the term-lending agency and interest on working capital fixed by working capital provider. Interest rates depend on working capital requirement, which in turn depends on sale/production quantity and working capital margin.

There are cash and non-cash expenses. Cash expenses have to be projected annually for raw material, packing, utilities, wages/salaries, repairs/maintenance, administration, selling expenses, interest on loan, rent, etc. Income minus such cash expense is cash profit. To account profit, both cash and non-cash expenses are deducted from income. Non-cash expenses include depreciation, amortisation of P&P expenses and write-off of technical know-how expenditure.

Value of fixed assets like building, machinery and office equipment depreciates every year. Depreciation in 'accounting' measures such reduction in the asset value. It also helps build a cash reserve for replacement of the existing asset later. Land's value does not depreciate and no depreciation is provided for it. Amortisation or gradual write-off of intangible assets are stipulated in income tax rules, viz. how and by how much every year. One may write off P&P and technical know-how expenditures in 10 and 6 years respectively. Contingency/escalation expenditure may be added to estimate asset cost and depreciation is provided on the resultant amount.

Depreciation can be provided by two methods, straight line (SL) and written down value (WDV) method. Depreciation rates are specified by law and vary with nature of asset. The WDV method effectively increases expenditure and reduces accounting profit in initial years and hence, income tax. The SL method may be used to prepare a projected profit statement, while the WDV may be used to estimate income-tax obligations.

10.9. Income Tax Projections

The tax burden can be estimated as follows:

- The WDV depreciation amount is subtracted from profit before tax. A percentage of preliminary and know-how related expenditure may be deducted every year as per norms to correspondingly reduce taxable profit before tax. It is also possible to carry forward losses. Losses incurred in a particular year may be offset against profit in the following years.
- Tax incentives offered for enterprises in a region or sub-sector should be incorporated and subtracted.
- Tax calculation depends on tax rate, which depends on assessee status and legal form of an enterprise's constitution. It may be a sole proprietary, a Hindu Undivided Family (HUF), a private or public limited company or a cooperative society. Tax rates vary accordingly. Tax is deducted from profit before tax (PBT) to arrive at profit after tax (PAT). FPCs enjoy an income tax holiday up to 5 years.

10.10. Financial viability and cash flow of an enterprise

Viability from the lender's point of view is the ability to repay the term loan. A financial ratio measures the enterprise's capacity to meet term loan and interest. Related obligation is the Debt Service Coverage Ratio (DSCR). A DSCR of one implies that the enterprise will earn cash to exactly meet all term loan and interest obligations. DSCR of about two is considered adequate. The higher the DSCR, the better the project.

There are various ratios like income-capital ratio, PBT(Profit Before Tax) to turnover ratio and Return on Investment (ROI) ratio, which reflects profitability:

An illustration/format on Developing the Financial Scheme of a Project Report / Business Plan

Basic data needs are as follows:

- Product/s:
- Installed capacity (line wise) per annum working in (X no. of) shifts (of 8 hours' duration each) for X days a year:
- Operating capacity (e.g. - 60% of installed capacity in the first year, 70% the second year and 80% thereafter)
- Expense on land, site development and fencing
- Cost of building construction
- Relationship between core input and output (e.g. in Kgs.) where feasible
- Price of core and other inputs and output

- Cost of machinery and equipment (incl. excise, sales tax and freight, insurance and octroi); installation expenses
- Miscellaneous Fixed Assets (furniture etc.)

*In the case of service sector projects most elements of project cost may involve equipment and miscellaneous fixed assets even if not plant and machinery.

Working capital estimation :

- Desirable carrying level/inventory of core raw material/input and finished goods stock
- Production/manufacturing cycle time
- Cost of stores, consumables and packaging material in terms of X Rs. per unit of output (for instance) and its desirable stocking period.

It may be noted that, while planning or forecasting price of commodity inputs for working capital estimation, various external factors have to be collected

Government intervention in Agri-commodity prices

There is high price volatility in agricultural commodities. The major commodities with unstable prices include potatoes and onion. Price support from the government is available through Minimum Support Prices(MSP) and also through the Market Intervention Scheme (MIS). The latter covers horticulture produces and perishables. Rice, wheat, maize, gram, pigeon pea, groundnut, soya bean and raw cotton enjoy MSP support, while potatoes, onion and banana enjoy MIS support.

“Futures Trade” to hedge against price volatility: Even as an MSP substitute!

Indian farmers are battered by price volatility and in such a situation, options can be an ideal instrument for ensuring their profit margins. Farmer Producer Companies can be encouraged to use options to manage commercial risk in the production, processing and marketing of agricultural products. Futures along with options can provide farmers with an appropriate tool to get a good price for their produce and manage price risk efficiently. Farmers' participation on Futures Trade is limited due to the entry barriers in the form of membership criteria, stringent KYC norms and margin requirements. By making it easier and simpler for Farmer Producer Companies to take membership of exchanges, farmers can be encouraged to move into formal, regulated, cash-less markets. The larger lot sizes of future contracts remain a challenge for small-holders to participate directly. With the emergence of FPCs and their increasing awareness, they are now able to hedge their price risk well in advance of the start of harvest seasons. Progressively, with commodity options being available soon, farmers will be securing another instrument to hedge their risk which is cheaper and more efficient. Options would give the farmers benefit of price protection in case the price falls below their cost of production, as well as the benefit of any rise in prices. This would be an even better instrument for farmers than futures.

Government intervention to control Agri-commodity prices: MEP, export bans and quotas

India's aggregate National exports of agricultural produce were Rs. 17.16 Crore in 2015-16, whereas overall imports were Rs. 24.90 Crore in 2015-16. If we look at the trade matrix of the country; cotton, cereals, edible fruits & vegetables & tea & coffee comprise the major share. The major regular agricultural imports in India comprise of the imports of animal & vegetable fats & oil, edible vegetables & edible fruits & nuts. Palm oil, soya bean oil & sunflower oil are the major items being imported under the category of animal & vegetable fats. Chickpea com-

prises more than two-third share in category of edible vegetables. Certain commodities are imported to meet the crises situations related to shortages in domestic supply. APEDA (Agriculture & Processed Food Products Export Development Authority) under the Ministry of Commerce & Industry, in association with the Department of Agriculture, Cooperation & Farmers Welfare, initiated a cluster approach by identifying contiguous geographical farmlands & developing the farmers to address the issue raised in cultivation (quality planting material, integrated pest & nutrient management, etc.), pre-harvest (maturity indices, permissible residue levels, etc.), through agencies of the state governments. The concerns in the post-harvest handling & export linkage are also being addressed. The trade related interventions in marketing include subsidised, tariff or non-tariff barriers and other trade policy instruments. Exports of agricultural commodities have been restricted through export prohibitions, licenses, quotas, marketing controls & minimum export prices (MEPs). To protect the interests of domestic consumers (and processors), the controls on export were enforced through trading enterprises. There are few essentials commodities like onion, which are exhibiting extreme price fluctuations. In such cases, MEP has been administered several times to control its price in the domestic market. Frequent, bans/restrictions on export of rice, pulses and related quotas are also imposed.

Redressing post-harvest infrastructure gaps – also to reduce wastage and maintain prices

Approximately 15% of crop is lost between the farm gate and the customer because of poor roads and improper storage facilities thus badly influencing the income of farmers (World Bank, 1997). Availability of proper road network provides the basics to facilitate trade, transportation, social integration and economic development. Some of the states despite having the potential to become leading agricultural producing states in India are low in terms of road infrastructure like Jharkhand, Rajasthan, Haryana, Madhya Pradesh, Gujrat, Andhra Pradesh & Uttar Pradesh. The number of regulated markets is relatively more in the geographically large states i.e. Maharashtra, Uttar Pradesh, Madhya Pradesh, Karnataka, West Bengal & Rajasthan. These six states account for more than half of the regulated markets in the country. The states of Punjab & Haryana though geographically small, have a large number of regulated markets. Increasing of farmers' incomes requires that adequate infrastructures is provided nearer to farmers' fields, connecting smallholders to the markets & strengthening value chain linkages. There is scope for promotion of food processing industries in these states primarily because of their strategic geographical location & proximity to National Capital Region, one of the major markets for processed foods. Only creation of cold storage facilities would not probably serve the purpose, it needs to be coupled with other logistic support like pack-houses, refer vans, ripening chambers etc. with continuous power supply to connect farmers and consumers more efficiently. NCCD reports that inadequate cold chain facility is the major constraint in the case of horticultural commodities because of high perishability of the products & less retention capacity of the farmers. Lack of cold chain attenuates the farmer's ability to reach out & connect with a large number of consumers. This has resulted in huge post-harvest losses of perishable agricultural produce. Similar to the evaluation of cold-chain, a need appraisal is also recommended for the other infrastructure elements that empower farmers to integrate into the supply chain, and be better linked directly with markets. Infrastructure items such as dry warehousing, silos, rail & transport, etc., mapped against market demand & with production are also required.

Provisions:

- Provision against possible price escalation/contingencies in fixed/miscellaneous assets (currency depreciation, delays in project sanction and implementation, missing out on some critical supporting equipment/electrification).

Financial contributors:

- The term lender's contribution to project cost.
- The working capital provider's assistance to goods in process and finished goods; raw material, and consumables/stores/packing material; value of sundry debtors or accounts receivables.

Financial charges:

- The rate of interest on working capital and term loans

Other expenses/utilities:

- Expenses on salary and wages and administrative expenses @ X per month.
- Power consumption and tariff rate.
- The selling commission (if any)
- Repairs and maintenance
- Construction period of factory is 6 months from sanction of term loan.
- First registration and other preliminary expenses
- Expenses in trial production.

Sales price:

- The selling price of finished product

Income tax norms:

- The income tax rates on taxable profit

To estimate the financial viability of the project, various statements are needed-

- Cost of project or Project cost (incl. computation of interest during construction period, working capital margin, if any)
- Working capital,
- Means of finance,
- Capacity utilisation and income projections,
- Expenditure projections (incl. computation of depreciation, interest implications and loan repayment plan etc.)
- Profit and tax projections,
- Debt service coverage,
- Profitability indicators,
- Cash flow projections, and
- Risk/break-even analysis.

The sub-sections below present formats for compiling relevant information.

- **Project Cost**

Project cost includes Fixed Assets and Net working Capital. Net working capital if brought in completely as equity is considered to be part of project cost. If it is to be brought in as loan, the margin component alone is included in project cost.

Format 1
Project Cost Estimates

		(Rs. In '000')
i.	Land and site development	
ii.	Building	
iii.	Machinery and Equipment	
	*Price inclusive of duty	
	Sales-tax	
	*Freight, Insurance, Octroi	
	<i>Miscellaneous</i>	
iv.	Assets (total)	
v.	Escalation and Contingencies	
vi.	Preliminary and Pre-Operative Expenses	
	*Firm-registration and trial-production	
	*Interest during project implementation period (construction and installation of machinery)	
vii.	Working Capital margin	
Total		

Formats below indicate calculations of two components: interest during implementation and working capital margin. Their values are incorporated in the format above.

Format 1.1
Interest During Period of Implementation

Item No.	Particulars	Cost (Rs.)
(I)	Land and Site Development	
	Building	
	Plant and Machinery	
	Miscellaneous Assets	
	Preliminary and pre-operative expenses (Excluding interest during construction)	
	Escalation and contingency	
Total		
(II)	Term loan	
(III)	Interest on term loan during construction period	

Working capital
Format 1.2
Computation of Working Capital

Capacity utilisation and output:		
Annual raw material requirement:		
Desirable raw material carrying level: say, one month:		
Value of raw material kept in stock:		
Annual value of stores, consumables, packing-material:		
Desirable carrying level: say, one-month value of stores, consumables and packing material:		
* Goods in process:		
a)	Manufacturing cycle: X days	
b)	Quantity under manufacturing cycle	
c)	Direct cost of total output (per annum)	
	Raw Material cost (Total per annum)	
	Stores, consumables, packing material (Total per annum)	
	Wages (Total per annum)	
	Power (Cost per annum)	
d)	Direct cost of one kg. /Mtr. /unit of output:	
e)	Direct cost of goods in process:	
*Finished goods:		
i)	Desirable carrying level:	
ii)	Direct cost of desirable carrying level	
iii)	Other indirect cost (one month)	
Administration:		
Selling Expenses:		
Interest on tem loan (Adhoc)		
Interest on working capital		
Loan (Adhoc)		
iv)	Total (direct + indirect) cost of finished goodsexcluding depreciation	
*Account receivables:		
i)	Cost	
ii)	The cost of credit sales	
*Wages and salaries		
*Electricity		
*Administrative, selling expenses, repairs and maintenance		
Gross working capital Requirement		
Component		Rs.
Raw Materials		
Store, Consumables and Packing materials		
Goods in Process		
Finished goods		
Sundry debtors or Account Receivables		

Wages and salaries	
Electricity	
Administrative and Selling Expenses	
Repair, and maintenance	
Total	

The working capital requirement and margin that may have to be contributed by promoters may be computed as per format below:

Format 1.3
Contribution mix to Working Capital (in Rs)

Sr. No.	Requirement	Quantity	Amount	Amount of bank assistance	Promoter's contribution (margin)
1	Raw material				
2	Store, consumables and packing materials				
3	Goods in process				
4	Finished goods				
5	Account receivables				
6	Other expenses (wages, power, Admin., selling, repair and maintenance)				
Total					

The project cost may be summarized in the following format:

Format 1.4
Project Cost (Rs)

Particulars	Amt
Land	
Building	
Machinery and Equipment	
Miscellaneous assets	
P & P Expenses	
Escalation and contingency margin	
Working capital margin	
Total	

- **Means of Finance (MoF)**

MoF would have its basis on required minimum promoter's contribution. Capital or investment subsidy, if any, reduces equity required up to such extent and balance goes to reduce debt.

- **Capacity Utilisation and Income Estimate**

Capacity utilisation and income estimate statement (in % terms):

Format 2**Capacity Utilisation and Income Estimate**

Installed capacity is X kgs. /mts./lbs. per year. Selling price is X Rs. per unit. Capacity utilization/ output/income estimates may be presented as follows:

Sr.No	Year	1	2	3	4	5	6	7	8
I	Capacity Utilisation (in % terms)								
ii	Output								
iii	Year	1	2	3	4	5	6	7	8
Iv	Income								

- Expenditure Estimates**

The operational expenses, raw materials, power, fuel and utilities, stores, consumables and packing material etc. need be in tune with capacity utilization projections. A chartered accountant or tax manual will help incorporate prevailing rates of depreciation.

Prior to computing depreciation as per format below, contingency and escalation accorded to different assets may be also allocated in proportion to value.

Item	Rate (% terms)		Annual Depreciation (in Rs.)							
			1	2	3	4	5	6	7	8
Building		Value								
		Depn								
		W.D.V.								
Machinery/equipment		Value								
		Depn								
		W.D.V.								
Miscellaneous assets		Value								
		Depn								
		W.D.V.								

*As per the Straight line (SL) method, depreciation rate, is considered on purchase/acquisition value of the asset every year. Under Written Down Value (WDV), depreciation is estimated on the written down or balance value of an asset. About 8.33 per cent under SL method rate and 33.33 per cent WDV rate is almost the same, for instance. Both reduce the asset value to almost nil in 12 years.

For preparing income-expenditure and profit statement, the straight line (SL) method is used. Annual amount of depreciation remains constant and so it is possible to judge the impact of annual improvement in capacity utilisation on profit. For taxation purposes WDV method need be used. Fixed assets entail depreciation. Preliminary expenses require amortisation. Pre-operative expenses such as expenses on establishment, and interest during construction. interest during construction can be added to fixed asset value and depreciation estimated.

The term-loan repayment is made over the year. In other words, repayment is not made in the beginning of the year. Therefore, half repayment amount is deducted from the outstanding term-loan at the beginning of the year and interest computed on the balance.

Format 3**Interest implication Loan Repayment**

Term Loan :

Working Capital loan (First Year) :

I. Interest on Term Loans (Rs.)

Year	1	2	3	4	5	6	7	8
Outstanding term Loan								
Term Loan Repayment During the Year								
Interest @ 12% p.a.								

II. Interest on Working Capital Loan

Year	1	2	3	4	5	6	7	8
Working Capital Loan								
Interest @ 17% p.a.								

III. Total Interest (Term-Loan and Working Capital)

Year	1	2	3	4	5	6	7	8
Total Interest payment								

Format 3.1**Expenditure Statement: The Solution**

Year/Expenditure	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Raw Material								
Stores, Consumables and Packing Materials								
Power								
Wages and Salaries								
Repairs and Maintenance								
Rent, Taxes and Insurance								
Direct Admin Expenses								
Selling Exp.								
Interest on Term Loan								
Interest on Working Capital								
Depreciation								
P&P Amortization								
Total (approximate)								

Computation of tax implication for the Project

Tax computation for the project is shown in the following table.

Format 3.2
Tax Computation (Illustrative)

								(Rs. in '000)	
Year	1	2	3	4	5	6	7	8	
Profit before tax									
Excess of WDV over SL									
Depreciation carry forward loan									
Deductions									
Taxable Profit									
Tax									
PAT									

Format 4
Profit & Loss Statement

Year	1	2	3	4	5	6	7	8	Total
Income									
Expenditure									
Profit before tax									
Tax									
Profit after tax									
Non-cash expenditure (Depreciation and P&P amortization)									
Cash Profit									

• **Debt Service Coverage Ratio**

A financial ratio, which measures enterprise capacity to meet term-loan-cum-interest and other long-term commitments/obligations, is called Debt Service Coverage Ratio (DSCR).

A DSCR of 1 means that the enterprise will generate cash just enough to meet all the (term-loan-and-interest) obligations. The term lender prefers a project in which even if there is some slide back in projected performance, it will generate enough cash surplus to meet the dues. A DSCR of 1.7-2 may be considered as minimum. Higher the DSCR, better the viability (and bankability) of a project).

Format 5
The Solution: Debt Service Coverage Ratio (Rs. in Lakh)

Year	1	2	3	4	5	6	7	8	Total
i. Cash accrual									
ii. Interest on term-loan (pre-tax)									
iii. Term-loan repayment (post tax)									
Debt-service Coverage ratio (i+ii/ii+iii)									
Average ratio need be estimated									

Loan Repayment is Post-Tax, but interest is tax deductible. Hence all inflows/outflows be shown uniformly on pre-tax or post-tax basis.

Format 6

Profitability Ratios for The Project

Year	1	2	3	4	5	6	7	8	Total
Turnover Capital Ratio									
Profit before tax to Turnover									

- **Cash Flow Statement**

Cash Flow Projection for the Project is presented below. Net cash accumulation upon meeting loan-repayment and interest liability may be computed.

The projected cash-flow statement and break-even analysis for the project is presented below.

Format 7

Projected Cash Flow Statement (Rs.)

Details	Constn.	1	2	3	4	5	6	7	8	9
Cash Inflow										
Promoters Capital										
Term Loan (TL)										
Working Capital (WC)										
Profit Before Tax										
Depreciation										
Amortization										
Other										
Total										
Cash outflow										
Increase in Working Cap.										
Capital Expenses										
Tax										
Repayment of TL										
Dividends										
Total										
Surplus/Deficit										
Cumulative Surplus										

Format 8

The Break-even Analysis

Sr. No	Particulars	Amount
I.	Variable cost per unit (kg) of output	
	Raw material consumption	
	Stores, consumable and packing materials	
	Power	
	Wages	
	Selling expenses	
	Interest on working capital	
	Total	

II.	Fixed Cost	
	Salaries	
	Repairs and maintenance	
	Rent, taxes and insurance	
	Other administrative expense	
	Interest on term loan	
	Depreciation and P&P Amortization	
	Total	
III.	Selling price per unit of output	
IV	Contribution per Unit of output (Selling price less variable cost)	
V.	Break-even point (Unit of Output)	
	Fixed Cost (Rs.)	
	Contribution per unit of output	
VI	Break-even Point (capacity)	

Format 9

The Sensitivity Analysis

		(Rs.)
Particulars		Amount
Possibility No.1: Fall of X % in selling price with costs remaining unchanged		
Revised income estimate		
Revised profit before tax		
Revised profit after tax		
Revised cash profit		
Revised debt service coverage ratio		
Possibility No. 2: Capacity-utilisation fall		
Revised income estimate		
Revised expenditure estimate		
Revised profit before tax		
Revised profit after tax		
Revised debt service coverage ratio		

The question is the project viable with adverse fluctuations/changes in trends in capacity utilization. A summary table may be prepared.

Format 10
Financial Viability of Project

Sr. No	Particulars	Amount
i.	Installed capacity	
ii.	Project cost	
iii.	Means of Finance	
	Term Loan	
	Promoters Capital	
iv.	Capacity Utilisation	
	First Year	
	Second year	
	Third year and thereafter	
v.	Average Annual Turnover	
vi.	Debt service coverage ratio	
vii.	Turnover capital ratio	
viii.	Profit before tax to turnover ratio	
ix.	Cash balance at the end of 8 years	
x.	Break-even point	
xi.	Sensitivity Analysis findings	
	(a) 5% drop in selling price	
	(b) Capacity utilisation levelling off at 70%	

10.11. Projecting Cash Flows and Statements of a Project

As an illustration: In a proposed enterprise equipment and machinery cost comes to Rs. 62 Lakh. At ideal capacity utilisation about two million kilogrammes per annum of the main raw material was required.

The project cost was about Rs. 115.4 Lakh. The components included:

Elements of project cost	Amount (Rs. in Lakh)
Land and site development	3.9
Building	15
Machinery and equipment	62
Miscellaneous fixed assets	4
Preliminary expenses	3
Pre-operative expenses (including interest during construction)	11.5
Contingency margin for possible price escalation on fixed assets	7.5
Margin for working capital	8.5
Total	115.4

The state financial corporation is the term lender and a commercial bank is the working capital provider. A 'backward-area' development loan is available. It is repayable in 8 half-yearly instalments after 11 years.

Means of finance	Amount (Rs. in Lakh)
Promoter's contribution (in the form of equity shares)	40
Term loan	64
Backward area development loan	11.4
Total	115.4

10.12. Project Underpinnings

Projections on financial statements are to be evolved in the following circumstances: The time required for implementing the project is one year. The enterprise would operate for 280 days per year on a 1.5 shift basis of total 12 hours per day. The installed capacity is 3456 tonnes per annum, and selling expenses are to be about 10 per cent of net sales. The company proposed to commence commercial production in April 2003. The expected capacity utilisation is 50 per cent in the first year, 60 per cent in the second year, and 70 per cent after that. Raw material and consumables will cost about 65 per cent of sales and the cost of power will be 4 per cent of sales. Wages and salaries are to be about Rs. 9 Lakh, Rs. 10 Lakh, and Rs. 12 Lakh for the first, second, and third operating years. After the third year this expense will increase by about 2.5 per cent every 6 months. Factory overhead expenses will be Rs. 1 Lakh for the first year. This component increases at the rate of 6 per cent per year subsequently. Administration expenses will be Rs. 2 Lakh per year. The average selling price per kilogramme of finished product could be Rs. 10. This is the price at which other processing units in the region sell their products. Minor fluctuations in selling price, viz. plus or minus ten per cent occurs. The term loan is to be repaid in 16 equal, half-yearly instalments, with the first instalment falling due at the end of the second operating year. The interest rate on the outstanding term loan will be 14 per cent.

The current asset requirements are expected to be as follows:

Raw materials (including consumables) stocking period	1.5 months
Work-in-progress	0.03 month
Finished goods stocking period	0.5 month
Accounts receivable (sundry debtors)	1 month

Working capital margin requirement is required at 25 per cent of current assets.

The suppliers of raw material and consumable stores (inputs) normally offer credit for half a month. The depreciation rates for company law purposes are as follows:

Building	3.34 per cent
Plant and machinery	8.09 per cent
Miscellaneous fixed assets	5.15 per cent

The depreciation rates under the WDV method for income tax purposes are to be as follows:

Building	10 per cent
Plant and machinery and miscellaneous fixed assets	33.3 per cent

The preliminary expenses are to be written off in 10 equal instalments. Preliminary expenses are expected to be Rs. 3 Lakh. The interest cost on working capital is 18 per cent. The firm plans to pay dividend from the second year. The dividend rate is proposed to be 12 per cent for the second year. Thereafter, it would be enhanced by 2 per cent every alternate year. In order to prepare the profitability estimates, the projected cash flow statements, and the projected balance sheets, we need information about: interest on term loan, working capital requirement, and the depreciation schedule.

This has been developed in Tables following. Compiling the information presented above, Profitability Estimates, Tax Calculation, Projected Cash Flow Estimates, and Projected Balance Sheets may be developed. Estimates in the tables below are approximate values rounded off to the first decimal.

(Rs. in Lakh)

Table 18 : Computation of Interest on Term Loan

Year	Loan o/s at the beginning	Loan o/s at the end of the first half year	Loan o/s at the end of the second half year	Int. for the first half year	Int. for the second half year	Total int. for the term loan
1	64	64	64	4.5	4.5	9
2	64	64	60	4.5	4.5	9
3	60	56	52	4.2	4	8.1
4	52	48	44	3.6	3.4	7
5	44	40	36	3.1	2.8	5.9
6	36	32	28	2.5	2.2	4.8
7	28	24	20	2	1.7	3.6
8	20	16	12	1.4	1.1	2.5
9	12	8	4	0.8	0.6	1.4
10	4	-	-	0.3	-	0.3

(Rs. in Lakh)

Table 19 Working Capital Requirements

Components	Carrying period in months	Year 1	Year 2	Year 3
1.0 Raw material and consumables	1.5	14	16.7	19.7
2.0 Work-in-process	0.03	0.3	0.4	0.4
3.0 Finished goods stock	0.5	5.2	6.2	7.5
4.0 Sundry debtors (stock) accounts receivable (sundry debtors)	1	14.4	17.3	20.2
Current Assets (Summation)		33.9	40.6	47.8
Working Capital margin		8.5	10.2	12
Less Credit for inputs	0.5	4.7	5.6	6.6
Working Capital loan (Bank support)		20.7	24.8	29.2

A. Valuation of assets for the purpose of depreciation

Table 20 : Depreciation

	Asset	Basic cost	Share of pre-operative expenses	Share of contingency margin	Total cost
a.	Land	3.9	0.5	0.3	4.7
b.	Building	15	2	1.3	18.3
c.	Plant and machinery	62	8.4	5.5	75.9
d.	Miscellaneous fixed assets	4	0.5	0.4	4.9

B. Depreciation rates for Company Law Purposes (Straight Line Method)

Building (3.34%)	0.61
Plant and machinery (8.09%)	6.14
Miscellaneous fixed assets (5.15%)	0.25
Total annual depreciation	7.00

C. Depreciation Schedule for Income Tax Purposes

Particulars	I	II	III	IV	V	VI	VII	VIII	IX	X
Building (10%)	1.83	1.65	1.48	1.33	1.20	1.08	0.97	0.88	0.79	0.71
Plant and machinery and misc. fixed assets (33 1/3%)	26.93	17.95	11.97	7.98	5.32	3.55	2.36	1.58	1.05	0.70
Total	28.76	19.60	13.45	9.31	6.52	4.63	3.33	2.46	1.84	1.41

Table 21 : Profitability Estimates of Operations round off

(Rs. in Lakh)

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Installed Capacity (Tonnes per annum)	3456	3456	3456	3456	3456	3456	3456	3456	3456	3456
Production (rounded off in Tonnes/annum)	1728	2074	2419	2419	2419	2419	2419	2419	2419	2419
A. Sales Realisation	172.8	207.4	241.9	241.9	241.9	241.9	241.9	241.9	241.9	241.9
B. Cost of Production (Direct expenses)	128.7	153.6	179.5	180.1	180.7	181.4	182.2	182.9	183.8	184.6
C. Indirect Expenses										
• Administration expenses	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
• Selling expenses	17.3	20.7	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
D. Gross Profit Before Interest	25.8	32.1	37.2	36.6	36.0	35.3	34.5	33.8	32.9	32.1
E. Total Financial Expenses										
• Interest on term loans	9.0	9.0	8.1	7.0	5.9	4.8	3.6	2.5	1.4	0.3
• Interest on bank borrowings	3.7	4.5	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
F. Depreciation	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
G. Operating Profit	6.1	11.6	16.8	17.3	17.8	18.2	18.6	19.0	19.2	19.5
H. Preliminary exp. written off	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
I. Profit Before Tax	5.8	11.3	16.5	17.0	17.5	17.9	18.3	18.7	18.9	19.2
J. Provision for Tax	-	-	-	1.65	4.05	4.56	4.75	5.22	5.42	5.58
K. Profit after Tax	5.80	11.30	16.50	15.35	13.45	13.34	13.55	13.48	13.48	13.62
L. Less:	-	4.8	4.8	5.6	5.6	6.4	6.4	7.2	7.2	8.0
M. Retained Profit	5.80	6.50	11.70	9.75	7.85	6.94	7.15	6.28	6.28	5.62
N. Add: Depreciation	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Preliminary expenses written off	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
O. Net Cash Accruals	13.10	13.80	19.0	17.50	15.05	14.24	14.45	13.58	13.58	12.92

Table below presents tax computation from which corresponding provision for tax is computed as presented in Table 28 above:

(Rs. in Lakh)

Table 22 Tax Calculations

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
• Profit before tax	5.8	11.3	16.5	17.0	17.5	17.9	18.3	18.7	18.9	19.2
Add : depreciation for company law purposes	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Total	12.8	18.3	23.5	24.0	24.5	24.9	25.3	25.7	25.0	26.2
Less: depreciation for tax purposes	28.8	19.6	13.5	9.3	6.5	4.6	3.3	2.5	1.8	1.4
	(16)	(1.3)	10.0	14.7	18.0	20.3	22.0	23.2	24.1	24.8
Less: unabsorbed depreciation of earlier years	-	-	10.0	7.3	-	-	-	-	-	-
• Gross total income	-	-	-	7.4	18.0	20.3	22	23.2	24.1	24.8
Less: deduction for 10 years for new projects from the initial year @ 25.5% of gross total income till year 4 and 25% beyond	-	-	-	1.81	4.50	5.07	5.50	5.80	6.02	6.20
• Total income	-	-	-	5.51	13.50	15.23	16.50	17.40	18.80	18.60
• Income tax @ 30 per cent of total income	-	-	-	1.65	4.05	4.56	4.75	5.22	5.42	5.58

Table 23 Projected Cash Flow statements

Particulars	Implementation Period	Year 1	Year 2	Year 3	Year 4
Sources of Funds Promoters contribution	40.0				
• Profit before tax with interest added back		18.5	24.8	29.9	29.3
• Depreciation		7.0	7.0	7.0	7.0
• Preliminary expenses written off		0.3	0.3	0.3	0.3
• Increase in secured medium and long-term borrowings	64.0	-	-	-	-
• Increase in bank borrowings for working capital		20.7	4.1	4.4	-
• Increase in Investment subsidy	11.4	-	-	-	-
Total (I)	115.4	46.5	36.2	41.6	36.6
• Capital expenditure for the project	103.9	-	-	-	-
• Working capital increase		29.2	5.8	6.2	-
• Preliminary expenditure	3.0	-	-	-	-
• Decrease in secured medium and long-term borrowings		-	4.0	8.0	8.0
• Interest on term loan		9.0	9.0	8.1	7.0
• Interest on bank borrowings for working capital		3.7	4.5	5.3	5.3
• Taxation		-	-	-	1.65
• Dividend		-	4.8	4.8	5.6

Total (II)	106.9	41.9	28.1	32.4	27.25
• Opening balance of cash in hand and at bank	0	8.5	13.1	21.2	30.4
• Net surplus/deficit (I – II)	8.5	4.6	8.1	9.2	8.2
• Closing balance of cash in hand and at bank	8.5	13.1	21.2	30.4	38.6

Table 24 Projected Balance sheet

	At the end of the implementation period	Year 1	Year 2	Year 3
Liabilities	40.0	40.0	40.0	40.0
• Share Capital	-	5.8	12.3	24.0
• Reserves and Surplus	64.0			
• Secured Loans	-	64.0		
- Term loan	20.7	60.0		
- Working capital	24.8	52.0		
• Investment subsidy	29.2			
• Current Liabilities and Provisions	11.4	11.4	11.4	11.4
- Credit received	-	4.7	5.6	6.6
Total	115.4	146.6	154.1	163.2
Assets	103.9			
• Fixed assets	-	103.9		
- Gross block	7.0	103.9		
- (Less) accumulated depreciation	14.0	103.9		
Net fixed assets	21.0			
• Current Assets,	103.9	96.9	89.9	82.9
- Raw materials	-	14.0	16.7	19.7
- Stock-in-progress	-	0.3	0.4	0.4
- Finished goods	-	5.2	6.2	7.5
- Sundry debtors	-	14.4	17.3	20.2
- Cash and bank balances	8.5	13.1	21.2	30.4
• Miscellaneous Expenditure (Preliminary expenses)	3.0	2.7	2.4	2.1
Total	115.4	146.6	154.1	163.2

A detailed project report and projected financial statements are invariably required for small and medium projects in the sector. For tiny and cottage (household) units, however, a simpler form of presentation is usually acceptable by lending institutions.

Business Plan/Project Format for a new or expanding Micro/Tiny Unit

The format presented below incorporates basic requirements in terms of structure of a plan.

1.0. General Information:

Name of the Firm:	
Project/activity proposed and location:	
Type of proposed organisation: Proprietary/Partnership	
Address:	
Name/age of the Promoter/s:	

1.1. Academic profile:

SSC or below/Degree/Diploma	Institute/subjects	Major Subjects/years of study

1.2. Professional/skill Training:

Training in	Institute/duration	Duration	Achievement / Remark

1.3. Work Experience (Past and Present):

Organisation/address	Position	Nature of Work	Duration

1.4. Annual Income of promoter/immediate family members (Last Year): Rs. _____

ii. Assets owned by the Promoter/s

Movable Rs. _____

Immovable Rs. _____

2.0. Details of the Proposed Project:**2.1. Land and building:**

Sr. No.	Particulars	Area Required	Total Value	Remarks
1	Land			
2	Building			
Total				

2.2. Machinery/Equipment:

Sr. No.	Description	Nos. Required	Rate (Rs.)	Total value (Rs.)
Total				

2.3. Misc. Fixed Assets:

Sr. No.	Particulars	Nos. Required	Rate (Rs.)	Total value (Rs.)
Total				

2.4. Preliminary and Pre-Operative Expenses:

Sr. No.	Particulars	Amount (Rs.)	Remarks
1	Interest during implementation		
2	Establishment expenses		
3	Start-up expenses		
4	Misc. expenses		
Total			

2.5. Working Capital:

Sr. No.	Item	Duration	Total Value (Rs.)		
			Year-I	Year-II	Year-III
1	Raw material stock				
2	Semi-finished goods stock				
3	Finished goods stock				
4	Sales on credit				
5	Production expenses				
Total					

2.6. Total Cost of the Project:

Sr. No	Particulars	Total Value (Rs.)
1	Fixed capital (Total of item nos. 2.1, 2.2, 2.3)	
2	Working capital (Total of item no. 2.5)	
3	Preliminary and pre-operative expenses (Total of item no. 2.4)	
Total		

2.7. Means of Finance:

Sr. No	Particulars	Amount (Rs.)	Remarks
1	Own investment		
2	Term loan		
3	Working capital loan		
4	Any other source		
Total			

3.0. Market Potential:

- 3.1. Present demand and supply of the product
- 3.2. Competition
- 3.3. Target market segment
- 3.4. Marketing strategy

4.0. Manufacturing Process

- a) Technical know-how availability
- b) Step by Step description of the manufacturing process
- c) Attach process flow chart (if applicable)

5.0. Production Programme:

- i) No. of working days per annum _____

- ii) No. of working shifts 8 hrs per day _____
- iii) Installed capacity (annual) _____
- iv) Utilised capacity (%):
- Year-I _____
- Year-II _____
- Year-III _____

Products and By-Products

Sr. No.	Item (s)	Quantity produced per year	Capacity utilisation (%)

5.1. Sales Revenue:

Year	Item (s)	Quantity sold per year	Rate per unit	Sales Realization (Rs.)
Total				

5.2. Raw Material (Annual Requirements):

Sr. No.	Item (s)	Quantity	Rate (Rs.)	Total Value (Rs.)
Total				

5.3. Utilities:

Sr. No.	Particulars	Annual Expenditure (Rs.)	Remarks
1	Power/Electricity		
2	Water		
3	Coal/Oil/Steam		
4	Any other item		
Total			

5.4. Manpower (Salaries/Wages):

Sr. No.	Particulars	No.	Wages/Salaries per month (Rs.)	Annual Expenses (Rs.)
1	Skilled			
2	Semi-skilled			
3	Unskilled			
4	Office staff			
5	Any other			
Total				

5.5. Repairs and Maintenance:

Sr. No.	Particulars	Amount (Rs.)
Total		

5.6. Selling and Distribution Expenses:

Sr. No.	Particulars	Amount (Rs.)	Remarks
1	Publicity expenses		
2	Travelling		
3	Freight		
4	Commission		
5	Misc.		
Total			

5.7. Administrative Expenses:

Sr. No.	Particulars	Amount (Rs.)	Remarks
1	Stationery and Printing		
2	Post/Telephone etc.		
3	Entertainment expenditure		
4	Misc.		
Total			

5.8. Interest:

Year	Outstanding Loan Amount	Interest	Instalment	Balance

5.9. Depreciation:

Sr. No.	Type of Asset	Cost of Asset	Expected Life	Depreciation

6.0. Profitability Projections:

Sr. No.	Particulars	Amount (Rs.)				
		Year-I	Year-II	Year-III	Year-IV	Year-V
A.	Sales realisation					
B.	Cost of production					
i)	Raw materials					
ii)	Utilities					
iii)	Salaries/wages					
iv)	Repairs and maintenance					
v)	Selling and distribution					

vi)	expenses					
vii)	Administrative expenses					
viii)	Interest					
ix)	Rent					
	Misc. expenses					
Total						
C.	Less: Depreciation					
D.	Gross profit/loss (A–B)					
E.	Income-tax					
F.	Net profit/loss					
G.	Repayment					
H.	Retained surplus					

* In addition Debt-Equity Ratio, Debt Service Coverage Ratio, ROI, BEP and payback period may be indicated.





FEASIBILITY ANALYSIS OF PROJECTS INTRODUCTION

Highlights

This chapter considers investment appraisal modes that give due regard to the time value of cash inflows and outflows and also the speed of returns or inflows.

Net Present Value (NPV) is the difference between sum of present value of cash inflows and present value of initial cash outflow.

Internal Rate of Return (IRR) is the discount rate at which PV of cash inflows is equal to PV of cash outflows.

11.1. Introduction

It is necessary to understand investment appraisal modes that give due regard to the time value of cash inflows and outflows, and also of the speed of returns or inflows. Such tools may be utilized for selection of a project or opportunity and its evaluation. There are basic flaws in conventional investment appraisal. There is advantage in utilizing discounting criteria in evaluation.

Some criteria often employed for projects in the (project cost) range of Rs. 10 Lakh and above include Net Present Value (NPV), Internal Rate of Return (IRR) and the discounted payback period criteria.

Simply analysing projects or business plans on the basis of return on capital employed does not give due regard to the time value of money or speed of returns or cash inflows. Hence, the use of the above criteria is imperative.

11.2. Analysing investment and feasibility in terms of Net Present Value criteria

Net present value or NPV of a proposed MSME is the sum of the present values of all cash inflows over its life minus present value of initial cash outlay.

Where, A_i is cash flow at the end of year x , n is project life, and r is the rate of discount. As an illustration, consider the cash flows projected in a business plan:

$$NPV = \sum_{X=1}^N A_i (1+r)^{-x} - \text{Initial cash outflow or invest. (Eg. Project Cost)}$$

Table 25 Expected cash flows of a project

Particulars	Cash flow (Rs.)
Initial investment	(10,00,000)
Cash flow in year 1	2,00,000
Cash flow in year 2	3,00,000
Cash flow in year 3	4,00,000
Cash flow in year 4	5,00,000



For estimation of NPV, the rate of discount (r) must be decided upon. Invariably, the rate of interest on typical debt finance is taken as r . The net present value of the project is:

$$\begin{aligned} \text{NPV} &= -10,00,000 + \frac{200,000}{(1.10)^1} + \frac{300,000}{(1.10)^2} + \frac{400,000}{(1.10)^3} + \frac{500,000}{(1.10)^4} \\ &= -\text{Rs. } 22,594 \text{ (approx.)} \end{aligned}$$

A plan may be accepted if NPV is positive and rejected if NPV is negative. If the NPV equals zero, it is a matter of indifference. The NPV mode assumes that cash flows generated in a plan are reinvested at a rate of return equal to the cost of capital or discount rate. Even different discount rates may be incorporated over time in terms of interest rates, for example.

The NPV method has some lacunae in that it is computed in absolute than relative terms and does not consider the amount of investment. Similarly, comparative NPV's do not accord regard to the life of the project. Hence, when mutually exclusive projects with different lives are being considered, the NPV methodology often favours projects with longer life span.

11.3. Internal Rate of Return

The internal rate of return (IRR) of a proposed enterprise or business plan is the discount rate which makes PV of cash outflow (investment) = PV of cash inflows (returns). This discount rate makes NPV equal zero. NPV is pegged at zero and the discount rate that satisfies this condition is determined. As an illustration:

Table 26 Cash inflows and outflows of a tiny project

Year	Cash outlay	Cash inflows		
		1	2	3
Cash flow	(74,000)	30,000	30,000	40,000

Where IRR is the discount rate which satisfies the equation:

$$74,000 = 30,000 (1+r)^{-1} + 30,000 (1+r)^{-2} + 40,000 (1+r)^{-3}$$

The r may be estimated by a trial and error method. Different values of r may be considered till value of future cash flows equals initial investment. Considering a discount rate of 15 per-cent, the summation of cash flows approximately equals:

$$\frac{30,000}{(1.15)} + \frac{30,000}{(1.15)^2} + \frac{40,000}{(1.15)^3} = \text{Rs. } 75,072$$

This value is higher than investment of Rs. 74,000. Consider a discount rate of 16 per-cent:

$$\frac{30,000}{(1.16)} + \frac{30,000}{(1.16)^2} + \frac{40,000}{(1.16)^3} = \text{Rs. } 73,783$$

This value is less than 74,000. Hence, it may be concluded that the value of r lies between 15 per cent and 16 per cent. Therefore, NPV at 15% equals 1,072 and NPV at 16% equals minus 217. The sum of the absolute values of the net present values is 1289. The ratio of the net present value of the lower discount rate to that of the sum equals 0.83. Add this value to the smaller discount rate of 15%. The IRR works out to approximately 15.83 per cent. A project may be accepted if the IRR is greater than the cost of capital and vice-versa.

11.4. Comparing the NPV and IRR

The IRR and the NPV indicates similar judgement if cash flows of a business plan or project are conventional, viz. initial cash flow (investment) is negative and further cash flows or returns are positive, and, the project is independent, viz. the option may be accepted or rejected without reference to any other option. IRR may not be employed if cash flows of a project are not conventional. One may secure multiple IRRs or no IRR may exist. While attempting to select from two mutually exclusive projects, also, the IRR is not appropriate. A project with higher investment may give a low IRR but higher NPV! Also, IRR need not be reliable as it cannot distinguish between inflow and outflow. Further, IRR is cumbersome to consider when short-term rates of interest vary from long-term interest rates. In such cases, IRR may be estimated on the incremental cash flow. An enterprise which requires smaller initial investment may be highly attractive as its IRR is relatively far more than the cost of capital. But when the rate of return on incremental cash flow is considered the high investment option may be chosen vis-à-vis the other! Therefore, when considering two options of different investment levels, IRR is reliable if incremental cash flows are the basis. IRR may yield misleading results while comparing mutually exclusive enterprise options that have different patterns of cash flow over time. Considering IRR on incremental cash flows may be more appropriate in this case too.

As per the IRR norm a project should be accepted if its IRR is more than the opportunity cost of capital. However, if opportunity costs vary every year, IRR may have to be compared with weighted average of rates. Thus, when interest rates vary over time NPV may be considered as more convenient and appropriate.

The IRR has an advantage over the NPV mode in that even if one is not aware of or does not consider a discount rate but a project has a high IRR of say, 25% the project may be accepted as it is unlikely that the discount rate would be that much.



CASE ILLUSTRATION ON SUCCESSFUL MICRO AND SMALL- SIZED ENTERPRISE START-UPS: LEARNING FOR FPCS

Highlights

In this chapter example of successful units into secondary processing are presented. FPCs can learn with regard to opportunity identification and management from these micro and small-sized start-ups catalysed under the MACP.

Bhumata Food Products in Ahmednagar district is processing various products such as coriander powder cumin powder, chilli powder, turmeric powder and 'Nachni Sattva'. After receiving training from KVK, the promoter of Bhumata was offered guidance by the ABPF for the preparation of a bankable business plan for launching a project with outlay of Rs. 50 lakh in which Rs. 37.50 lakh was the loan component from Bank of Baroda. The promoter procures raw material from the weekly market as well as wholesale market of Ahmednagar. He then dries it, and after drying, grinds it. Subsequently, depending upon the type of spice, blending activity is carried out. After blending, pouches of different sizes are packed.

Ruchi foods Products, is a SHG from Pune district making pickles and chutney. Upon receiving technical training from the KVIC, the entrepreneur was assisted to prepare a bankable project report or business plan to set up a unit with project cost outlay of Rs. 99.67 lakh in which Rs. 74 lakh was the loan component from Canara Bank (Rs.35 lakh term loan and Rs. 39 lakh as working capital loan). The unit was able to achieve an annual turnover of Rs. 67 lakh for the year 2015-16. The enterprise markets through large retail chains as well as the internet.

Kisan Agro Foods is situated in Aurangabad. The enterprise produces carbonated soft drinks such as mango drink, coconut water, guava juice and mixed fruit drinks etc. with a project outlay of Rs 47.75 Lakh. Vijaya Bank sanctioned a term loan of Rs. 20 Lakh and a working capital loan of Rs. 15 Lakh. The unit produces pomegranate, mango and guava flavoured drinks.

Krushni Amrut Agro Food is an agri- business enterprise located in Buldhana district, manufacturing various amla and other products. The enterprise is manufacturing value added products from amla, mango, jamun and tomato. The promoter undertook detailed study for about 2 years which covered aspects like raw material availability, machinery requirements, demand analysis, innovative product lines etc. The entrepreneur also visited existing amla processing units in and around Buldhana to gain better understanding. The total project cost in the project amounts to about Rs. 31.46 Lakh which is a mix of equity, NHM grant and bank loan to the tune of about Rs. 20 Lakh from the Bank of India. The USP of Krushni Amrut Agro Foods is originality of the ingredients maintained by avoiding use of preservatives. The products are free of synthetic colour and artificial flavour. Preservatives in minimum quantities are used only for amla juices.

Rujal Production is a proprietary concern involved into the business of herbal products and health food supplement manufacturing in micro-scale. The lady entrepreneur has established a small unit with own finance in District Pune. The products being manufactured by the enterprise are amla, jamun, bitter gourd, ashwagandha, shatawari powders as well as gulkand, shatawari kalp, chyavanprash, sauf (for household purposes), face pack, hair pack, mehendi, shikakai and hair oil. She secured training inputs from the Khadi and Village Industries commission. The USP of Rujal Production is purity; and self-concocted formulas of ingredients required to make various herbal and health food supplement products. The entrepreneur has adopted an intensive marketing strategy. She has fostered tie-ups with the majority of medical stores in and around Pune. Notably, the products are also sold through Patanjali outlets under the Rujal Production brand. Door to door sales is another marketing strategy adopted by the entrepreneur. Of the total project cost, promoter's contribution is pegged at about Rs. 4.6 Lakh and term loan at Rs. 13.85 Lakh from the Canara bank. The manufacturing process of herbal products involves purchasing of raw material that is herbs, vegetables and fruits. These ingredients are then dried so as to make fine powder. Once they are dried properly, this raw material along with other essential ingredients is processed through a pulveriser to make a fine powder. This powder is then packed into different packet sizes with proper labelling and sold.

Samruddhi Agro Food Industries is located at district Ahmednagar, Maharashtra. The entrepreneur has envisaged a plant for manufacturing edible and non-edible oil from various types of oil seeds. This oil mill is to process products like oil (ghani) and oil cake of flax seeds, cotton oil seeds and kardi seeds. The entrepreneur was guided on technical aspects such as on necessary machinery, sources of raw material and packaging options, in terms of manufacturing process.

Shrinath Food Products a food processing unit is in operation in District Ahmednagar, Maharashtra. The enterprise manufactures readymade wheat flour in various packet sizes for easy consumption. Before commencing operations initially, the promoter undertook trial production (through third party job work) and processed wheat flour in small quantities. The raw material required for processing, that is wheat, is procured from farmers in the catchment area and from traders in Madhya Pradesh as well as from the local market. The total project cost for this enterprise is Rs. 8.98 Lakh which is a mix of both equity and bank loan. The entrepreneur's contribution has been in the range of Rs. 2.24 Lakh, that is, 25 per cent and the balance bank loan. The enterprise also manufactures protein rich flour.

Dayanand Agro Foods of Aurangabad district was evolved by a Director of Dayanand Agro Producer Company. The promoter decided to start an independent wheat flour milling and packaging unit in order to cater to the needs and demands of local farmers associated with the FPC. With project outlay of Rs. 121.95 Lakh, the enterprise was facilitated with Rs. 30.48 Lakh as term loan component from the Canara bank. Dayanand Agro Foods has also started selling its branded packaged wheat flour in small scale in the local market of Ahmednagar.

Pundlik Baba Rice is located in Bhandara district. The project cost of the unit is Rs. 76.19 Lakh in which Rs. 30 Lakh was offered by the bank as term loan and Rs. 9.53 Lakh was secured under the SFAC Venture Capital Assistance with the balance being contributed by the promoters. The manufacturing process in the upcoming facility basically involves warehousing (storage), pre-cleaning and de-stoning, de-husking, paddy separation, thickness grading, whitening, polishing, length grading and packaging.

Sulabh Industries is located in Nagpur. Huge demand for its processed pulses and need for automation prompted the promoters to expand and upgrade the existing plant. The promoter prepared a plan for production of pulses, by-products like chunni, bhushi and khanda. He was supported by the Union Bank for a project outlay of Rs. 62.50 Lakh in which Rs 15 Lakh is offered by the bank as a term loan, Rs. 6.50 Lakh is interest free loan under the SFAC Venture Capital Fund, Rs. 15.50 Lakh as grant from MoFPI and Rs. 25.50 Lakh contributed by the promoter. The manufacturing process in a related enterprise involves: cleaning, grading, de-stoning and then drying, grading, de-husking, splitting, colour sorting, polishing and packaging.

12.1. Introduction

The case illustrations presented in this chapter cover a wide canvas of enterprises. ^(xxv) Products manufactured and marketed successfully by the micro or small-sized enterprises vary from rice and pulses, pickles, wheat flour to various edible oils. These enterprises have covered a wide mix of marketing strategies ranging from referrals from doctors to marketing through SHGs. These firms are successfully competing in the market using a “consumer push” than “consumer pull” strategy.

12.1. Bhumata Food Products : Integrated spices and food processing targeting perceived local supply-demand gaps

The town of Newasa in Ahmednagar district is located close to the two holy places of repute, namely Shirdi and Shani Shaniganapur. There are many restaurants and hotels in this town and nearby areas that require large quantities of spices and Atta. At present, these eateries largely procure their inputs from spices processing units at distant Ahmednagar and Aurangabad. Hence, the cost of procurement of spices for these hotels is high because of inconvenient logistics. Upon identifying this need from the market and to exploit the local opportunity in the spices processing sector, a local entrepreneur of Ahmednagar decided to establish an integrated food, and specifically spices processing unit. He is native to the region and this decided the locational choice of the project.

Being experienced for more than 10 years in the food and pharma sector, he was keen to set up an enterprise at his home town. He therefore approached the Agriculture Technology Management Agency (ATMA) office in the region and requested and received training from the Krishi Vignan Kendra (KVK) in 2016 on spices processing. With the vision to grow and step into the food processing industry, the promoter has envisaged a plant for manufacturing various food products with the use of modern technology. This unit is today initiating production of various products such as coriander powder, cumin powder, chilli powder, turmeric powder and “Nachani Sattva”.

Spices processing apparently has great market potential. As a matter of fact, India is renowned as the home for spices and boasts of a long history of spices trading with the ancient civilisations of Rome and China. Today, Indian spices are the most sought-after globally, given their exquisite aroma, texture, taste and medicinal value. India also offers the largest domestic market for spices in the world. As a matter of fact, India is the world’s largest producer, consumer as well as exporter of spices. The country produces about 75 of the 109 varieties listed by the International Organization for Standardization (ISO) and accounts for one half of the global trading volume in spices. The country commands a formidable position in world spices trade with spice exports expected to touch about USD 3 billion by 2016-17. In value terms, India’s spice market grows at an average of about 8.8 per cent per annum. Notably, about 893,920 tonnes of spices, valued at USD 2.4 billion were exported in 2014-15. The domestic and export market potential are both apparently very high.

After receiving training from the KVK, the entrepreneur was offered guidance by the ABPF for the preparation of a bankable business plan for start-up of a project with outlay of Rs. 50 Lakh in which Rs. 37.50 Lakh was the loan component from the Bank of Baroda. This plan and project includes machinery like roasters, pulverisers, blenders, dryers and cleaning and packaging equipment. In addition to spices processing, the equipment can also process baby food like Nachani (Finger Millet) Sattva. The entrepreneur plans to deploy a unique marketing strategy using referrals from doctors to market Nachani Sattva.

In terms of manufacturing process, the promoter procures raw material from the weekly market as well as wholesale market at Ahmednagar. He then dries it, and after drying, grinds it. Subsequently, depending upon the type of spice, blending activity is carried out. After blending, pouches of different sizes are packed. Considering 180 days of operation and on single shift basis, the projected turnover of the unit is Rs. 50 Lakh per annum with direct employment generation for 22 workers (skilled and unskilled). The unit requires a large quantity of chilly, turmeric, coriander and finger millets. Therefore, in addition to business plan preparation for loan, the entrepreneur was guided on how he can competitively procure such inputs from FPCs in Ahmednagar and Aurangabad.

The promoter acclaims the ABPF as “a friend in need is a friend indeed”. His request for loan has now been sanctioned and amount disbursed. Production has already started in small scale. The entrepreneur is confident of successfully marketing his produce and growing his enterprise rapidly.

12.2. Ruchi Food Products : From household to commercial processing along with SHGs

Self Help Groups (SHG) in India evolved with the global emergence of micro finance as the means for ensuring financial inclusion of the rural and urban poor in developing nations. Notably, women played a prominent role in setting up and managing SHGs. Presently, over 90 per cent of all the SHGs in India consist of women. Such SHGs are also seen as a platform for empowering women through financial inclusion. In this setting, near Pune city in the district of Pune, a lady entrepreneur formed a “Mahila Bachat Gat” with intent to promote entrepreneurship amongst women members, marketing of produce and encouraging their active participation in social welfare campaigns. This initiative led to evolution of her own firm Ruchi Food Products in 2006 at Lohgaon (Pune). She started making pickles, chutneys on small scale basis and members of the self-help group supported her in operating this enterprise

The lady used to visit different food fairs and melas or exhibitions to sell her products which she initially started manufacturing on household or cottage scale without the support of any bank loan. Soon she started receiving large orders for pickles and chutneys. In addition, customers and consumers often enquired on other products like karela, lemon, chilli pickles, flour items like ragi (finger millet) and papad etc. The lady entrepreneur, therefore, decided to expand and secure professional training on processing of various food products. She approached KVIC and professional training institutes for technical training on food processing.

Upon receiving technical training, the entrepreneur was assisted to prepare a bankable project report or business plan to set up a unit with project cost outlay of Rs. 99.67 Lakh for availing a loan from a bank. The entrepreneur approached the Canara Bank with the plan for realising a loan of Rs. 74 Lakh (Rs. 35 Lakh as term loan and Rs. 39 Lakh as working capital loan). The bank asked her to make several changes in the business plan as per their specific requirement. Team ABPF- Grant Thornton customised and re-casted the business plans three times over as per changes and modification suggested and required by the bank over scrutiny of the proposal prior to sanction. Her loan proposal to Canara Bank has now been effectively sanctioned.

Basically, the project comprises machinery and equipment like roasters, pulverisers, coating machine, oven, dryers and packaging equipment. The entrepreneur is expanding her enterprise capacity into larger commercial scale of operations using this equipment to exploit the ever growing market demand. Considering 300 days of operation and on a single shift basis, the projected turnover of the unit is Rs. 1.63 Crore with direct employment generation for 10-12 women (both skilled and unskilled). With current infrastructure and technology, the unit was able to make an annual turnover of Rs. 67 Lakh for the year 2015-16. GT-ABPF guided her on the options for raw material procurement from regional FPCs. The enterprise is also into Nachani (finger millet), raw mango and pulses. In addition, the entrepreneur has now also approached exporters for marketing of such products abroad.

12.3. Kisan Agro Foods: Moving up from auto-rickshaws ... and entering into carbonated soft drink production as an activity related to family business

Aurangabad is the capital of Marathwada and is virtually the tourism capital of Maharashtra. The city is a tourist hub, surrounded by many historical monuments, including the Ajanta and Ellora Caves, which are UNESCO World Heritage Sites. The region is also fairly industrialised with the presence of Bajaj Auto and Garaware Industries, which generates jobs for the skilled workforce. Notably, about 52.5 per cent of Aurangabad's population is in the 15–59 years' age category implying a growing regional market for Fast Moving Consumer Goods (FMCGs) as well as for processed food. The promoter of this firm belongs to this city and was occupied as an auto rickshaw driver. He had the burning desire to start up his own business and be his own boss! He was fortunate to have the “peer” experience as his family was operating a small coconut water plant in Chennai and even marketing the produce in Mumbai. He availed of guidance from ABPF and prepared a plan which aims at producing carbonated soft drinks such as mango drinks, coconut water, guava juice and mixed fruit drinks etc. The entrepreneur's business idea had commonalities with his family's small coconut water processing project in Tamil Nadu. This is also in terms of distribution channels and aspects such as channel motivation strategies.

Market demand in the soft drink segment is apparently strong and growing. All-India production of aerated soft drinks is about 900 Crore bottles per year, of which the production of carbonated soft drinks is about 70 per cent, that is, 630 Crore bottles. Per capita consumption of carbonated drinks is about 4 bottles per year, which is low compared to other developing countries such as Pakistan -13, Bangladesh – 8, Egypt – 3, and extremely low compared to the USA where it is 350 bottles. Hence, there is considerable potential for consumption trends to rise. The market is apparently dominated by brands of leading Pan India companies such as Parle (46 per cent), Pure Drinks (23 per cent), Mc Dowell (7 per cent). Nevertheless, every Indian state has its own small local brands which have their own niche market. Typically, smaller firms and brands use customer push than consumer pull strategies to motivate marketing channels. Also, smaller firms basically offer higher margins to wholesalers and retailers.

The entrepreneur approached Vijaya Bank for realising necessary loan, with support of ABPF GT preparing a bankable plan. The start-up envisaged an outlay of Rs. 47.75 Lakh of which Rs. 20 Lakh is offered by the bank as a term loan and Rs. 15 Lakh is for working capital. This project includes machinery like carbonator, water cleaning RO machine, filling machine, chiller, bottle mould, packaging equipment and printing cylinder. The entrepreneur looks to target wholesalers and retailers to market his produce.

In terms of manufacturing process in the facility, the first step is to purify water using an RO plant. The mixture of sugar, flavourings, essences, and water is called syrup and after water purification, such syrup clarification is an important step. Thereafter, carbonation (adding carbon dioxide to drink) takes place, followed by bottle filling. Consider-

ing 200 days of operation and on conservative single shift basis, the projected turnover with current infrastructure, machinery and technology for the year 2015-16 was Rs. 12 Lakh. The unit targets a turnover of Rs 1.72 Crore with direct employment generation for 8 workers (skilled and unskilled). The unit requires a large quantity of pomegranate, mango and guava. Notably, the ABPF guided the entrepreneur on how he can procure inputs from FPCs in Ahmednagar and Aurangabad districts.

12.4. Krushi Amrut Agro Food: Amla Processing: NIAEM Alumni moves from job-seeking to job-creating in Amla processing after detailed study

An upcoming agri-business enterprise is located in Deolgaon Raja block of Buldhana district for manufacturing various Amla and other products with modern equipment. This enterprise to be well-equipped with machines and equipment, aims at production of various processed food such as amla candy, amla powder and amla juice etc. The enterprise Krushi Amrut Agro Foods is a proprietorship concern. The entrepreneur has acquired land for the project admeasuring 1000 sq.ft. Notably, Bhalchandra is well qualified. He is a Post Graduate Diploma holder in Agricultural Extension Management from the National Institute of Agricultural Extension Management and is a B.Sc. (Agriculture Biotech). The entrepreneur (along with other family members) has considerable exposure to the food processing industry and has experience of more than 5 years in this segment. As a matter of fact, the entrepreneur has also worked in the Agricultural Technology Management Agency (ATMA), Mahabaleshwar as Subject Matter Expert (SME) for about three years. The enterprise is to manufacture value added products from Amla, Mango, Jamun and Tomato and penetrate new market areas in the Vidharbha region (including districts like Nagpur and Amravati).

Bhalchandra being an agriculture graduate, worked with the state Agriculture Department for about three years before deciding to move onto an entrepreneurial career. Amla, being available in sufficient quantity in the region and upon studying the increasing demand for amla products (also) in the light of its medicinal values, the entrepreneur decided to take up Amla processing as an agri-business option. As a matter of fact, Bhalchandra undertook detailed study for about 2 years which covered aspects like raw material availability, machinery requirements, demand analysis, innovative product lines etc. The entrepreneur also visited existing amla processing units in and around Buldhana to gain better understanding. After such detailed study, the entrepreneur decided to take up entrepreneurship. After, a few months of running the business, the need for realising financial assistance arose. This is where ABPF-Grant Thornton played an important role. Experts from Grant Thornton prepared a techno commercial feasibility report taking into consideration the findings of detailed study. The ABPF-GT team guided the entrepreneur on technical aspects such as innovative machinery, sources of raw material, packaging details etc. The entrepreneur was also made aware about various state and central government schemes which he can take benefit from. Various licences such as FSSAI, NOC (No objection Certificate) from Nagarpalika, Land NOC, Udyog Aadhar etc. essential for the smooth functioning of business have been already secured.

In terms of manufacturing process, raw material required is procured from nearby farmers and the local market place. Once the raw material, i.e. Amla, Mango and Plum is procured, they are vigorously washed so that the raw material is free of dirt and germs. After washing Amla, the raw material is then boiled so that Amla can easily be flaked or shredded. This Amla is then dipped in concentrated sugar syrup to make Amla candy. For Amla juice, Amla flakes are passed through a juice extractor and fresh Amla concentrate is extracted. For making Amla powder, Amla flakes are completely dehydrated and then crushed to make fine powder. These products are then packed onto various sizes with attractive labelling. Important machinery and equipment necessary for the proposed project is tray dryer, juice filling machine, bottle cap packing machine and an automatic packing machine. To consider the envisaged operations

of the enterprise in detail, considering 252 days of operation on single shift basis, at 100 per cent capacity utilisation, enterprise operations will daily require 100 kgs of sugar, 500 gms of preservatives (Sodium Benzoate), 1 LPG gas (fuel) cylinder (19 kg), 250 grams of Flavour and Colours, 1 kg salt and 1 kg chat masala. The firm will also require packaging material like Pet Bottles and Caps, packing wrappers, Packing Paper rolls, Corrugated Boxes, Punch boxes (Paper Boxes), Tape and big sized jars.

The total project cost amounts to about Rs. 31.46 Lakh which is a mix of equity, grant from the NHM and bank loan to the tune of about Rs. 20 Lakh from the Bank of India. As indicated, the entrepreneur has also applied for grant from National Horticulture Mission to the tune of Rs 10.34 Lakh and expects sanction from the Bank of India in a few days' time. The unit requires large quantity of Amla, mango and plum and therefore the entrepreneur was guided on how he may procure this raw material from FPCs in and around Buldhana and other parts of Maharashtra. The projected turnover of the unit is about Rs. 3 Crore per annum with direct employment generation to the tune of 10 workers (both skilled and unskilled).

The USP of Krushi Amrut Agro Foods is vis-à-vis originality of the ingredients maintained by avoiding use of preservatives. The products are free of synthetic colour and artificial flavour. Preservatives in minimum quantities are used only for Amla juices. Critical success factors in this business are uniqueness of products, and there is almost no competition in similar products across the Vidharbha region. Furthermore, there is excellent availability of raw material and the cost of labour is also low in the region. The products manufactured by this entrepreneur are natural, healthy and are free of chemicals. Only basic preservatives are used in Amla juice, Mango juice and Jamun juice. The promoter is confident of successfully exploiting market potential and sustainably growing his enterprise.

12.5. Rujal Production: Expanding into commercial scale leveraging on growing demand for herbal and health food supplements

Rujal Production is a proprietary concern into the business of herbal product and health food supplement manufacture a micro-scale. The lady entrepreneur has established a small unit with own finance in District Pune, Maharashtra. The project is located in Lohegaon, Tal Haveli, Pune, Maharashtra, with built-up area admeasuring 1500 sq.ft. The products being manufactured by the enterprise are amla, jamun, bitter gourd, ashwagandha, shatawari and such powders as well as gulkand, shatawari kalp, chyavanprash, sauf (for household purposes), face pack, hair pack, mehendi, shikekai and hair oil. Deepali is a diploma holder in electrical engineering and also owns an electronics firm. Importantly, she is trained in the field of manufacturing herbal products. She secured training inputs from the Khadi and Village Industries commission.

The lady entrepreneur has always had a fascination towards herbal and health food supplement products and likes to experiment with various herbal ingredients. Actually, she first started making products for personal use. Upon discovering positive results, she approached her relatives and neighbours with her products. These were highly appreciated by her relatives and friends and hence she started cottage or micro-scale production of such products. By 2016, the entrepreneur decided to undertake production on larger commercial scale. She undertook a market survey by distributing samples of products and checked its acceptance. She also conducted a competitor analysis focussing on differentiating her products from competition. ABPF-GT helped the entrepreneur formalise her business through securing necessary statutory licenses for starting and operating a business in the food processing sector in terms of Udyog Aadhar registration and Shop Act license. She has also registered for FSSAI license and will be receiving the same soon. The USP of Rujal Production is purity; and self-concocted formulas of ingredients required to make various herbal and health food supplement products.

There has been a shift in the universal trend from synthetic to herbal medicines recently. It is ancient wisdom that plants have therapeutic value and are used to treat various diseases since the Neanderthal age. Apparently, all ancient civilizations in the world are known to use plants for medicinal purposes. Ayurveda and traditional Chinese medicines are well known to the world for their natural ingredients and multiple benefits. Notably, India has great potential as Mother Nature has bestowed the country with an enormous wealth of medicinal plants; therefore, India has often been referred to as the “Medicinal garden of the world”. Today, people around the globe are giving preference to alternative medicines such as Ayurveda, naturopathy, homeopathy and herbal medicine. Also, demand for health food supplements is on the rise. Growing awareness about medicinal benefits as well as therapeutic effect of herbal products is pushing up demand for herbal extracts, dietary supplements and herbal-based beauty aids worldwide. The demand scenario is therefore very positive.

The entrepreneur has adopted an intensive marketing strategy. She has fostered tie-ups with the majority of medical stores in and around Pune, especially medical stores in Lohegaon where the unit is established. Notably, the products are sold through Patanjali outlets under the Rujal Production brand. Door to door sales is another marketing strategy adopted by the entrepreneur and many sales personnel market products from door to door. Wholesale orders are also catered to by Rujal Productions. The products are marketed in various packet sizes such as 10gms, 50gms and 100gms.

The total cost of the proposed project works out to be Rs 18,46,687. Out of this, the outlay on land and building is to the tune of Rs. 2,45,000. The necessary machinery and equipment component accounts for Rs. 8,20,155. Some of the other components of project cost include Preliminary and Pre-operative (P&P) expenses at about Rs.1,50,000 and expense on furniture and fixtures to the tune of Rs. 50,000. The promoter also requires a working capital of Rs. 6,66,531 for the smooth functioning of the project. The project is to be established with a mix of equity and debt. Of the total project cost, promoter’s contribution is pegged at about Rs. 4,61,672 which constitutes about 25 per cent of the total project cost and term loan at Rs. 13,85,015 which amounts to 75 per cent of the project cost. The project is expecting final sanction from the Canara bank in a matter of days.

The machinery that the promoter is deploying for quality production is an Automatic 15 kg capacity Roasting/Mixing cum Coating Machine, Single Phase Pulveriser Machine, Semi-automatic Pouch Packing Machine - laminated Paper and Packaging Machine. The manufacturing process of herbal products involves purchasing of raw material that is herbs, vegetables and fruits. These ingredients are then dried so as to make fine powder. Once they are dried properly, this raw material along with other essential ingredients is processed through a pulveriser to make a fine powder. This powder is then packed into different packet sizes with proper labelling and is sold in the market through sales women. The enterprise is to be operated with a staff of about 15 women-force.

12.6. Samruddhi Agro Food Industries: Husband and wife team leveraging debt finance to diversify from fertilizers and into commercial operations in edible and non-edible oil production

A proposed unit at District Ahmednagar, Maharashtra is a project moving to larger commercial scale of operations leveraging on debt finance. The entrepreneur has acquired land on a long term lease basis for 95 years from the MIDC in Shrirampur Industrial Area, Shrirampur Taluka admeasuring 1000 sq. metres. The enterprise envisages investment in larger scale commercial production with modern equipment. The entrepreneur has envisaged a plant for manufacturing edible and non-edible oil from various types of oil seeds. Being well-equipped with machinery and equipment, this unit also exploits regional resource potential. The raw material (that is, groundnut, kardi, cotton, sunflower, castor, neem) used for preparation of various products will be used to produce edible as well as non-edible oil. This oil mill is

to produce products like oil (ghani) and oil cake of flax seeds, cotton oil seeds and kardi seeds. Besides quality, another important factor to be laid emphasis on in this trade is packaging. This is in order to retain taste and nutritional value of produce. Apparently, quality of products has helped to garner trust of clients of this proprietorship concern which has been in operation on micro or cottage scale for the last few months and has been involved in the extraction of edible and non-edible oil from oil seeds.

The lady entrepreneur along with other family members has successful experience in entrepreneurship in the field of organic fertilizers and pesticides. Notably, her spouse has 10 years of experience of working in unit manufacturing non-edible oil in Janki Agro Industries, Kolhar. The entrepreneur has a mission to process value added products from Groundnut, Kardi, Cotton Seed, Sunflower, Castor and Neem in the light of absence of competition from other non-edible oil units in nearby areas, even while providing gainful employment to the local poor and providing forward linkages to local oil seeds and vegetable growers in the catchment area for inputs.

As a matter of fact, edible oil is one of the essential commodities used daily by the Indian populace for cooking purposes. Basically, edible oil is extracted from oil seeds like groundnut, Kardi, Cotton, Sesame, Linseed, Mustard, Rape seed and sun flower. Non-Edible oil is being used for medicinal purposes, soaps and lubricants and can be extracted from commodities like Castor and Neem. For the extraction of the oil, oil “ghanis” are typically used. For greater commercial production in larger units, expellers are deployed. Traditionally, oil ghanis were manned by bullocks. However, today they are operated by power (electricity). Power ghanis may be found in both rural and urban areas. Oilseeds and edible oils are two of the most sensitive agricultural commodities in the country. Moreover, India contributes to about 9 per cent of the world oilseeds production, to about 7 per cent of the global production of protein meal and is the 4th largest edible oil economy in the world. The supply and demand base are both strong. Within the country, Madhya Pradesh is the leading oilseed producing state in the country and accounts for about 21 per cent of total oilseed production in the country. The other leading oilseed producing states are Gujarat, Rajasthan, Maharashtra and Andhra Pradesh. Oilseeds, edible and non-edible oil play an important role in the agricultural economy of the country. Groundnut, rapeseed and mustard, soybean, sunflower, sesame, niger seed, castor and linseed are the nine major oilseed sources for obtaining edible and non-edible grade oils. In this regard, the secondary sources comprise coconut, cottonseed and rice bran solvent extracted oils from tree and forest origin.

The lady entrepreneur's spouse who is partly supporting her entrepreneurial venture also has a farming background. Being aware of the demand potential for neem he decided to establish facilities to process neem into neem oil. Apparently, the idea of processing neem to produce neem oil struck in his mind even when he was pursuing his graduation studies. The husband and wife team undertook extensive market research for a couple of years. They deeply studied manufacturing process, raw material requirement, as well as machinery requirement for running the business. The entrepreneur also carried out a SWOT analysis which highlighted that own funds alone were not sufficient for setting up a related enterprise and hence decided to seek financial assistance from their bankers Canara Bank. Upon approaching the bank with a rough business plan they were advised to prepare a detailed project report or business plan with projected balance sheets, P&L statement, cash flows as well as indicators of financial viability. The entrepreneur was guided on technical aspects such as on necessary machinery, sources of raw material and packaging options. The entrepreneur was also made aware about various state and central government schemes of assistance and about the regulatory compliances vis-à-vis FSSAI, pollution control and Udyog Aadhar. A NOC from the MIDC has been already acquired.

In terms of manufacturing process, the promoter is to procure raw material from farmers in the nearby locality. Upon procurement of oil seeds they are crushed finely and oil is extracted from seeds with the help of extraction equipment. The produce is then filtered. Upon filtration, oil and fat based residue is produced. The oil which is extracted is then packed into various package sizes; the fat based residue is used in soap industry as raw material. Apart from fat residue, residue of crushed seeds is also obtained. This seed residue is passed through a pulveriser and moulded into fine cakes which is an excellent cattle feed. The oil cakes are in great demand as consumption of these cakes by cattle increases milking capacity. Therefore, the various products that may be manufactured from oil seeds including oil, fat based residue and oil cakes all have considerable demand. The machinery and equipment being deployed for the project comprise oil expeller, boiler, pulveriser filter press, conveyors, weighing machine and stitching machines. In terms of project revenues, considering 300 days of operation and on single shift basis, the projected turnover of the unit is Rs 4.6 Crore with direct employment generation for 8 workers (skilled and unskilled) initially. Notably, this business activity requires edible and non-edible oil seeds such as sunflower, safflower, castor, kardi, neem etc. in large quantities which was also advised in terms of direct procurement from Farmer Producer Companies based in and around Ahmednagar district. The enterprise has realised assistance by way of debt capital to the tune of Rs.22 Lakh from the Canara Bank and is well into project implementation.

12.7. Shrinath Food Products: A case of convenience food wheat processing

A convenience food processing unit is in operation in District Ahmednagar, Maharashtra. The project is set up in Mhase, Tal - Shrigonda, Ahmednagar in area admeasuring 2400 sq.ft. Convenience food products are growing in demand. In today's era of women-folk working to eke out a living coupled with their ever growing emancipation, there is ever increasing demand for such foods. An enterprise coming up in Ahmednagar caters to this need in a changing society and seeks to manufacture wheat flour. The enterprise is to manufacture readymade wheat flour in various packet sizes for easy consumption. The firm Shrinath Food Products is a proprietary concern. The proprietorship firm has successfully commenced operations in 2016.

Before commencing operations initially in cottage/micro-scale sans institutional credit, the promoter undertook trial production and processed wheat flour in small quantities. Initially, the entrepreneur checked the quality of flour as well as its physical appearance and tested its acceptability in the market. Prior to commencing operations, the entrepreneur also visited existing wheat flour mills for gaining practical knowledge. The raw material required for processing that is, wheat is procured from farmers in catchment area. Thereafter, he observed that his own funds alone were not sufficient for setting up the business unit and hence he opted for financial assistance from the Central Bank. In this regard, the promoter was guided on related equipment and technology, input sourcing and on packaging. The entrepreneur was guided on aspects such as FSSAI, lab testing reports and securing NOC from the Gram Panchayat. Importantly, the entrepreneur believes in purity and in maintaining the quality of the product which is already fetching him good business. Apparently, unlike flour from many other manufacturers, his produce is free of any adulteration and impurities. The entrepreneur uses a special Marshal Atta Chakki which helps in retaining the originality and maintaining quality of wheat flour. The demand for branded cereal flour products is now increasing. Even big giants like Hindustan Unilever, NEPC Agro and Nirma have jumped into this lucrative industry. Wheat Flour or Atta is predominantly used in food items in India, such as chapatti, roti, naan and puri and in sweet items too like in halwa and pakoda. Owing to the public distribution system providing whole wheat which has to be grounded and also purchasing wheat from the open market and grinding it, it will be cheaper than flour available in the market and one has the option to grind it to the consistency required. These advantages generate a huge market potential for a Mini Wheat Flour Mill. A simple low

cost mini wheat mill is of great relevance especially in rural regions. It can produce common of milled wheat products in small quantities at a low investment

In terms of manufacturing process, the enterprise procures raw material, that is, wheat from traders from Madhya Pradesh and also from the local market. After procuring wheat, it is cleaned through use of pre-cleaner and destoner so as to remove the foreign material content. This cleaned wheat is then processed through a flour mill until fine powder of desired quality is obtained. This flour is now packed into various packet-sizes. The enterprise caters to both retail and the wholesale market. Major buyers of wheat flour are households, retail units, hotels, hospitals and catering businesses. Considering 180 days of operation and on single shift basis, the projected turnover of the unit is Rs. 58.80 Lakh with employment generation for 6 workers (skilled and unskilled), initially. The total project cost for this enterprise is Rs. 8.98 Lakh which is a mix of both equity and bank loan. The entrepreneur's contribution has been in the range of Rs. 2.24 Lakh, that is, 25 per cent and the balance bank is loan. Today, the entrepreneur is also exploring option of procuring input wheat from FPCs in the region. The enterprise is to also manufacture protein rich flour which has good demand. Such flour is recommended by doctors to overcome deficiency of proteins as proteins are essential to repair wear and tear activities in the human body.

12.8. Dayanand Agro Foods: An FPC evolving from primary cleaning and grading of wheat to flour milling through entrepreneur start-up

Indian producers are unable to realize optimal value from their produce mostly due to fragmented land holdings and inability to reap scale economies enjoyed by large farms. India has over 12.5 Crore farmer households of which over 85 per cent are small and marginal farmers with land holdings of less than 2 hectares each and at barely 1.33 hectare per farmer household. Typical small and marginal farmers cannot gain efficiencies from quantity procurement of inputs, or deploy costly farm and post-harvest technologies. Such had been the situation of the farmers in Phulambri taluka of Aurangabad district. Around 50 per cent of farmers in this region go in for distress sale of their produce in order to service credit availed for agro-input purchase and domestic requirements. They sell their produce to traders in the local mandis only. They have limited exposure to other markets or sales channels. They submit to the dictates of local traders due to the inability to scout and link with other potential buyers and suffer from unfavourable trading terms. A Farmer Producer Company (FPC), as an institution, evolved as a silver lining for such farmers, as it has helped them utilize scale to procure inputs at a lower price and achieve more bargaining power when marketing their produce. It has also helped them in accessing timely and adequate finance, build capacity and gain direct linkages to markets. In view of this, and as per the mandate of the Maharashtra Agricultural Competitiveness Project (MACP), farmers from 9 villages came together and formed the Dayanand Agro Producer Company which has successfully implemented a common facility centre for primary processing of agri-inputs with assistance under the MACP.

Alongside, one of the Directors of Dayanand Agro Producer Company, decided to start an independent wheat flour milling and packaging unit in order to cater to the needs and demands of local farmers associated with the FPC. This flour unit is to support the demand and supply from around 2360 Households (HHs) and 5801 hectares of cultivable land in the region. The unit has been set up in an area measuring 1500 sq. ft., at Jalgaon mete located in the taluka Phulambri of district Aurangabad, Maharashtra. The related processing plant has the capacity to process 20 quintals of wheat per hour. The enterprise is to operate for 8 hours a day and processes around 14.4 tonnes of produce at 90 per cent efficiency per day. This capacity allows the processing unit to mill only a small proportion of total grain production in the region. Mete was offered guidance for the preparation of a bankable plan by ABPF-GT for start-up of a project with outlay of Rs. 121.95 Lakh in which Rs. 30.48 Lakh was the term loan component from the Canara

bank. This plan and project includes machinery like wheat cleaning machine, gravity separator, wheat crusher, flour mill, packing machine and other accessories. The project is expecting sanction in a matter of days but operation has already been initiated in smaller cottage scale by the promoter.

In terms of manufacturing process, the enterprise procures raw wheat grains directly from the FPC as well as from other farmers. This is then cleaned and milled. Subsequently, depending upon the type of output, refined wheat flour, rawa, maida (75 per cent) and mill fed (25 per cent) is obtained. Considering 240 days of operation on single shift basis, the projected turnover of the unit is Rs. 780 Lakh with direct employment generation for 8 workers (skilled and unskilled).

The promoter has extensively researched the challenges and opportunities in marketing of agro-produce in the district and other major markets. In fact, the packaged wheat flour market in India started breaking the age-old tradition of grinding wheat at local Chakki mills by growing at a whopping compound annual growth rate (CAGR) of 19 per cent. The wheat flour market is largely dominated by local chakki mills in India. However, the branded packaged wheat flour segment is emerging rapidly in the country by offering better quality, nutrition and convenience. As indicated, Day-anand Agro Foods has started selling its branded packaged wheat flour in small scale in the local market of Ahmednagar. The promoter looks forward to expanding the processing capacity of the flour mill to larger commercial scale in the near future with debt finance and thereafter even extend the product line as the business grows.

12.9. Pundlik Baba Rice Mill: “Whole family” involved rice milling start-up within the rice-bowl of the State

Bhandara is a rather small district of the state of Maharashtra and the fifth-least populated. About 80 per cent of the populace live in rural areas and agriculture occupies an important place in the rural economy of the district. In the light of soil composition and rain fall, paddy is the major crop grown in the district along with other crops such as wheat, tur, gram, turmeric and linseed. Out of the total 389 thousand hectares of geographical area, total area under cultivation is 264 thousand hectares. The total area under food crop paddy is about 174 thousand hectares. Hence, paddy is the major crop in Kharif season and over 2,00,000 farmers in the district are directly involved in paddy cultivation. As a matter of fact, Bhandara is also popularly referred to as the “Rice Bowl of Maharashtra”. Substantial (export quality) rice is being regularly exported from Bhandara and nearby regions to the quantum of over 29,000 TEUs (Twenty foot Equivalent Units) annually via the road route of NH-6 through CONCOR’s Inland Container Depot at Ajani, Nagpur to countries like South Africa and parts of Russia. There are over 243 registered rice mills (mostly micro scale) and many rice brokers and agents in the district. The district basically enjoys convenient availability of raw material paddy, good connectivity logistically and a large number of related and supporting service providers.

The lady entrepreneur and her family have extensive experience of paddy farming and years of experience in rice milling (through their micro-sized enterprise - Harde Rice Mill). As a matter of fact, the Harde Family is a farmer family turned ‘first generation entrepreneurs’, who have continued their occupation of paddy farming as well as ventured into rice milling. Upon understanding the services of ABPF-GT Team, Kunda Harde and her son approached the Team for assistance. Her ward, Harshawardhan Harde, thereon worked closely with ABPF-GT. Though the promoters sought to establish a modern integrated rice mill, machines like whiteners and silky polishers are rather capital intensive. The promoters decided on a simple (khauti type) rice mill where job work could be pursued. In a khauti type mill basic custom milling of paddy to rice conversion is facilitated. Such mill, however, does not include machines like whiteners and silky polishers. In the absence of such machines, the finished product is not marketable and is generally further processed by upgraded or modern mills for final marketable finished products. The Team guided the promot-

ers on schemes like CLCSS, SFAC Venture Capital Assistance Scheme, MAIDC's NMFP scheme and PSI 2013. After having understood on how the combination of some of these schemes would considerably lower their liability in future the promoters decided to go in for a modern integrated project. The plan envisages production of polished rice and by-products like bran and husk.

The promoters were offered support for the preparation of a bankable business plan by ABPF-Grant Thornton for the project with project cost of Rs 76.19 Lakh in which Rs 30 Lakh is offered by the bank as term loan, Rs. 9.53 Lakh is envisaged under SFAC venture capital assistance and the balance being contributed by the promoters. The enterprise is also eligible for subsidy of 25 per cent on project cost under the NMF scheme of the MAIDC. The promoters are bringing in the amount equivalent to subsidy till the time the amount is received from Government Agencies. Further, about Rs. 25 Lakh is required from the bank as working capital. This project includes machinery and equipment like pre-cleaner, de-stoner, de-husker, paddy separator, whiteners and silky polisher. The promoters target sale of products through commission agents, wholesalers and retailers. The promoter family has experience of many years in the food grain business and has an established network across Bhandara and other regions of the country.

The manufacturing process in the upcoming facility basically involves warehousing (storage), pre-cleaning and de-stoning, de-husking, paddy separation, thickness grading, whitening, polishing, length grading and packaging. Considering average (over) 200 days of operation and on single shift basis, the projected turnover of the unit is Rs. 4.29 Crore with direct employment generation for 28 workers (skilled and unskilled). The unit is expected to also partly source its paddy requirements from FPCs in Bhandara, Gondia, Chandrapur and Gadchiroli districts. The promoters request for loan has been recently sanctioned by the Bank of Maharashtra.

12.10 Sulabh Industries: Dal milling by second generation entrepreneurs in the orange city

Nagpur is the winter capital and the third largest city of the Indian state of Maharashtra and the largest city of Central India. The city has many features in its favour. The city has been adjudged as the 20th cleanest city in India and the top mover in the western zone as per Swachh Sarvekshan 2016. Nagpur is reputed as the "Tiger Capital of India" as it connects many tiger reserves in India to the world. It is among the important cities for the information technology sector in Maharashtra. The city is located in the centre of the country with the Zero Mile marker indicating the geographical centre of India. In terms of the agri-business sector, Nagpur is famous for the "Nagpur Orange" and is reputed as the "Orange City" for being a major trade centre of oranges cultivated in the region. Nagpur is also home to ice-cream manufacturer Dinshaws, Indian dry food manufacturer Haldiram's, Indian ready-to-cook food manufacturer Actchawa and Ayurvedic products companies Vicco and Baidyanath. Owing to the large production of pulses in the region (in Nagpur, Amravati and Yavatmal), dal milling has been one of the important sectors for investment for many entrepreneurs. As a matter of fact, the Dal Mill Cluster of Nagpur is a large cluster and is in the process of commissioning a large modern Common Facility Centre with assistance under the MSECDP scheme of Ministry of MSME.

An entrepreneur and her family members are part of the dal milling fraternity and been in the dal mill business for many years now and have vast experience in the industry. The promoter is one of the leading and reputed manufacturers of pulses in Nagpur. Huge demand for its processed pulses and need for automation prompted the promoters to expand and upgrade the existing plant. The promoters understood the gamut of services provided under the ABPF including backward linkages with the region's FPCs and Farmer groups. Being in industry for years, they understood the importance of such activity to ensure effective procurement of raw material. Madhuri's son Sulabh Gupta availed of guidance of Team ABPF-Grant Thornton and prepared a plan which aims at production of pulses, by-products like chunni, bhushi and khandra.

He approached the Union Bank with a bankable plan prepared by ABPF-Grant Thornton for a project outlay of Rs 62.50 Lakh in which Rs 15 Lakh is offered by the bank as a term loan, Rs. 6.50 Lakh is interest free loan envisaged under the SFAC Venture Capital Fund, Rs. 15.50 Lakh envisaged as grant from MoFPI and Rs. 25.50 Lakh contributed by the promoter. This project includes machinery like de-stoner, classifier (with aspirator), dryers, rolls and electric panels. The entrepreneur targets sale of products through commission agents, wholesalers and retailers to sell his produce. The promoter family has experience of many years in the food grain business and hence has established a strong connection with consumers across Nagpur and other regions of the country.

The manufacturing process in a related enterprise involves: cleaning, grading, de-stoning and then drying, grading, de-husking, splitting, colour sorting, polishing and packaging. Considering 300 days of operation and on double shift basis, the projected turnover of the unit is Rs 24.29 Crore with direct employment generation for 12 workers (skilled and unskilled). The unit requires large quantity of pulses as inputs and hopes to procure raw material from FPCs in Amravati, Yavatmal and other districts. The promoters request for loan has now been sanctioned and project is being implemented in right earnest.





FUNDAMENTALS OF BOOKKEEPING

Highlights

This chapter shall enable us to understand the fundamental concepts of book keeping. Financial Accounting is the field of accounting concerned with the summary, analysis and reporting of financial transactions pertaining to a business. Bookkeeping is the recording of financial transactions, and is part of the process accounting in business. Bookkeeping helps in maintaining and giving the current position of the business.

The double entry bookkeeping system is a universal system based on the principle that every economic transaction has two effects, which are exactly opposite to each other. Any transaction can have only two effects i.e. 'debit' and 'credit' and they are always equal.

The accounts are classified into three categories:

- Personal Account
- Asset Account
- Income-expenditure Account

Ledger is a book for recording and totalling economic transactions measured in terms of a monetary unit of account with account type with debits and credits in spate columns.

Posting refers to the process of transferring entries from journal or subsidiary books to the appropriate accounts in the ledger.

The various books to be maintained for accounting purpose are:

Journal Book, Subsidiary Book, Sales Book, Ledger, Cash Book, Bank Book, Stock Register

This chapter covers fundamental concepts regarding bookkeeping. To elaborate:

13.1. Introduction

The system which records, analyses, and reports the effect of business transactions and events taking place in a business is accounting. Since all such reporting is in financial units, the system is also known as financial accounting. It highlights the true state of the affairs of a business at a particular time, and the surplus or deficiency which has occurred during a specified period. It involves data recording of various transactions or bookkeeping. Recorded data is summarized, systematically arranged, and presented to users in the form of financial statements. ^(xxvi)

13.2. Double-Entry Bookkeeping

'Bookkeeping' is one of the functions of financial accounting. It entails maintaining proper records and books for reporting complete details of transactions made during the course of business. Business transactions can be classified into several major activities/groups, viz. sales, purchases, assets, liabilities, etc. Separate books for recording transactions pertaining to these activities are maintained, registering in them the details of the respective transactions. Book-

keeping helps in maintaining and giving the current position of the business and, therefore, assumes great significance. It is necessary to maintain books of account because:

- they reflect the outcome of the transactions made during the period under review.
- they give information about the state of affairs of business at intervals for use by the promoters and also by bankers.
- they help government and other authorities to decide on tax obligations.
- they help to analyse the performance of the business.

Though the owner of the business has the prime responsibility to write/maintain the books of accounts, he is not free to write them as he wishes, but has to write the accounts as per the norms and principles of accounting used the world over. There are a few accounting techniques available for writing accounts, but the double-entry bookkeeping system has universal acceptability and credibility. There is an international forum for accounting which strives to standardize accounting practices prevalent in different countries.

The double-entry bookkeeping system is based on the principle that every economic transaction has two effects, which are exactly opposite to each other. Any transaction can have only two effects, viz. 'debit' and 'credit' and they are always equal. Therefore, at the end of the accounting period, both the accounts, i.e. 'total debits' and 'total credits' should tally with each other. The double-entry bookkeeping is designed in such a way that while entering credit entry of a particular transaction the details of corresponding debit entry is also recorded.

13.3. Writing Accounts Under Double-Entry Bookkeeping

Transactions

The promoter undertakes several transactions while doing business. Only those transactions whose value can be measured in monetary terms need accounting treatment. Transactions may be of the following measures:

- Exchange of goods against cash/credit
- Exchange of services against cash/credit
- Exchange of assets against cash/credit
- Payment of cash to creditors
- Receipt of cash from debtors
- Exchange of goods against assets
- Exchange of goods against services

These transactions arise in business and they are the starting point of accounting. Transactions may be cash transactions or credit transactions. Cash transactions result in exchange of cash while credit transactions result in an obligation to pay/receive cash in the future.

13.4. Accounts

Transactions involve 'accounts' that are debited or credited as per the transaction. There are total three types of accounts:

- 1. Personal accounts or individual accounts :** This group of accounts includes all accounts of individuals and organisations like a firm, a corporate entity, a society, etc.

2. **Asset account** : This group covers all types of assets. Assets mean all those investments made in tangible or intangible form of assets, which have utility, value, or use value. Moreover, these assets can also be disinvested and converted into cash.
3. **Income-expenditure accounts** : This group of accounts encompasses all accounts, which represent revenue income and revenue expenditure of the business.

13.5. Rules of Debit and Credit

In the double-entry bookkeeping system, each transaction has two effects; one is 'debit' and the other 'credit'. Thus each transaction has minimum one debit effect and corresponding minimum one credit effect. There are prescribed rules for debiting and crediting various accounts as mentioned below:

1. **Rules for 'Personal Accounts'** : "Debit the receiver and credit the giver". Any person involved in business transactions can either be a receiver of cash, assets or services, or be a giver of cash, assets or services, without any immediate consideration. The accounts of the individual or person who receives is debited, while the account of an individual or person who gives is credited.
2. **Rules for 'Assets Accounts'** : "Debit what comes in and credit what goes out". In business, whenever any asset or goods is required, its respective account is debited while when an asset or goods goes out, its respective account is credited.
3. **Rules for 'Income-Expenditure Accounts'**: "Debit expenses and losses and credit income and gains". This group of accounts covers all revenue income and expenditure accounts. All those revenue incomes, which are generated during the course of business, are credited in their respective accounts and all such revenue expenditure incurred during the course of business are debited in the respective accounts.

To identify debit or credit effects of a transaction it should be understood

1. whether the transaction needs accounting treatment
2. which two accounts are involved in the transactions
3. which group of accounts is involved in the transactions
4. that the rules of debit and credit for the identified accounts are applied as per their classifications
5. that there cannot be both 'credits' or both 'debits' in a single transaction. Every transaction must have a 'debit' entry and a corresponding 'credit' entry.

13.6. Journal Entry

The first entry in the book of accounts whereby debit and credit effects of each transaction on the accounts involved are identified and noted along with the proper description is a journal entry. Journal entry helps in preparing several books of accounts.

Table 27 Format for Maintaining a Journal and Writing Journal Entries

Journal entries in the book of M/s_____				
Date	Particulars	Ledger Folio No.	Debit (Amount)	Credit (Amount)

1. **Date** : The journal entries must be written date-wise in a chronological sequence. It is ideal to write entries of the transactions daily. The 'Date' column records year, month, and date of the transactions for which journal entry is made.

2. **Particulars** : In this column, the transaction for which accounts are to be debited and credited is mentioned. The account which is to be debited is written first, followed by the account which is to be credited. A word ‘To’ precedes the name of account which is credited.
e.g. “Bank account debited to sales account”.
A very brief narration of the transaction may be written in the column of particulars subsequent to the transaction record.
3. **Ledger Folio No.:** It records the folio number of the respective accounts in the ledger. This helps to trace the posting of each transaction and verify it.
4. **Debit and Credit:** In these columns the amount by which respective accounts are debited and credited is mentioned.

At the end of every page the total of debits and credits is made to be carried forward to the next page.

13.7. Ledger and Posting

Details of all accounts in which transactions are made are recorded in a ledger. Condensed and classified record of all business transactions transferred from the journal or subsidiary books is recorded in the ledger. It is the principal book in the double-entry bookkeeping system containing up-to-date information about all accounts, e.g. if a businessman wants to know how much owes to Mr X, he can see it from Mr X’s account maintained in the ledger. In the absence of a ledger, a businessman would be required to go through each transaction involving Mr X and thus calculate his payment liability towards him. This exercise is time consuming and inconvenient. For large businesses, it is impossible to scan the primary books or journal every time to know the exact position of any account. It is, therefore, very important to maintain a ledger.

How to Maintain an ‘Account’ in a Ledger?							
Date	Particulars	J.F. No.	Amount	Date	Particulars	J.F. No.	Amount

Explanation: A ledger account has two sides: the left-hand side is the debit side and the right-hand side is the credit side. Each side is further divided into four sections, viz. ‘Date’, ‘Particulars’, ‘Journal Folio Number’, and ‘Amount’.

1. **Date:** The date of a transaction as entered in the journal book, from where the entry is brought to the ledger account, is recorded in this column.
2. **Particulars:** The name of account in which the corresponding credit or debit (under double-entry principle) is found is recorded in the ‘particulars’ column.
3. **Journal Folio Number:** The page number of the journal book or subsidiary book, from where transaction is brought to account, is recorded here.
4. **Amount:** The amount with which the account is debited or credited is mentioned in this column.

13.8. What is Posting?

Transactions are first entered as and when they occur in journal books or subsidiary books. From there necessary records are created in the ledger. The process of transferring entries from the journal or subsidiary books to the appropriate accounts in the ledger is called posting.

If an account is debited with an amount as entered in the debit column of the journal book, it is posted to the debit side of the account in the ledger and vice versa. While posting, care should be taken to see that the debit side does not show the name of the account in which the entry is posted. Instead, the name of the other account which is affected under the same transaction should be mentioned. Each entry to the debit side of an account should begin with the word 'To' (in 'particulars' column) and each entry to the credit side should begin with word 'By'.

13.8. Balancing the Account

Normally, as it happens, the total of all postings to the debit side and the credit side of the account is not equal. The amount by which the total of any side (debit or credit) is greater than the total of the other side is called the 'balance' of the account. If the total of the debit side is greater, it is called 'debit balance' or else it is called the 'credit balance'.

The following accounts always have debit balances:

- a) Cash account
- b) Assets account
- c) Debtor's account
- d) Stocks account
- e) Revenue expenses account
- f) Losses account

The following accounts always have credit balances:

- a) Creditor's account
- b) Revenue income's account
- c) Gains or Profits account
- d) Bank loan's account.

13.9. Various Books to be Maintained

Subsidiary Books: Journal is the first book where all transactions are recorded. It is the book of original entry. Likewise, ledger is the most important basic book, which records all accounts.

It was possible to enter all transactions first to the journal book and then enter them in the respective account in the ledger as long as transaction in a business were limited. But, as the size of business and the number of transactions increase it becomes difficult to maintain a journal book for all transactions and then post them in the ledger. Under such circumstances, it becomes necessary to divide the journal books and the ledger into some separate subsidiary books, each of which is reserved for the recording of one particular class of transactions, e.g. purchase book, sales book, cash book, etc.

How many books need be maintained for a very simple accounting system?

For a small industrial or trading enterprise, usage of simple financial accounting system is recommended. The following set of books should be maintained by such businesses. By doing so, the businesses can get a correct and fair picture of the activities speedily. Computer or microprocessors can also be used for maintaining such books.

- a. **Journal Book:** All transactions except those, which are to be recorded in subsidiary books, are recorded in the journal.
- b. **Subsidiary Books:** (For Journal)

(1) Purchase Book: Transactions pertaining to purchase, on credit or by cash, are recorded in the purchase book. Transactions of purchase returned are also recorded here separately.

(2) Sales Book: All transactions pertaining to credit or cash sales are recorded in the sales book. Transactions of sales returned are also recorded in this book separately.

- c. **Ledger:** All accounts involved in transactions recorded in journal or its subsidiary books are maintained in the ledger. Necessary posting is made.
- d. **Cash Book:** The cash book is a subsidiary book of the ledger. The account of 'cash' is maintained here. Transactions involving 'petty cash' are also posted here separately.
- e. **Bank Book:** The bank book is a subsidiary book of the ledger where the account of 'bank' is maintained.
- f. **Stock Register:** The movement of stock is maintained in the stock register.

The formats of Journal Book and Ledger Accounts have been discussed earlier. The formats of subsidiary books like purchase book, sales book, cash book, bank book, and stock register are presented below along with a brief explanation on its usage.

Table 28 Format of a Purchase Book

Date	Party's Name	Bill No.	L.F. No.	Item Name	Quantity	Rate	Amount	Terms
Total								

1. **Date:** The date on which the purchase was made is mentioned here.
2. **Particulars:** The name of the supplier of materials and other necessary details of the invoice are mentioned here.
3. **Bill No.:** The number of the bill of the supplier is mentioned here.
4. **Ledger Folio:** The folio number of the ledger on which either the supplier's account (if credit purchase) or cash account (if cash purchase) is credited is mentioned here.
5. **Amount:** The net amount of purchase made is mentioned here.
6. **Terms:** The terms of purchase like it is on cash terms or credit terms, etc, are mentioned here.

Table 29 Format of a Sales Book

Date	Particulars	Bill No.	L.F. No.	Item Name	Quantity	Rate	Amount	Terms
Total								

1. **Date:** The date on which the sales transaction took place is mentioned here.
2. **Particulars:** The name of the purchaser of goods and other necessary details of the invoice are mentioned here.
3. **Bill No.:** The number of the bill of the buyer is mentioned here.
4. **Ledger Folio:** The folio number of the ledger on which either the buyer account (if credit sales) or cash account (if cash sales) is debited is mentioned here.
5. **Amount:** The net amount of sales done through this transaction is mentioned here.
6. **Terms:** The terms of sales transactions like 'cash or credit' are mentioned here.

Table 30 Format of a Cash Book

Debit Side (Receipts)				Credit side (Payments)			
Date	Particulars	J.F. No.	Amount	Date	Particulars	J.F. No.	Amount
					Credit side (Payments)		
Total				Total			

The 'cash book' is nothing but a cash account. Like other asset accounts, this account is also required to be mentioned in the ledger. But, because of the multiplicity of cash transactions and for convenience, the cash account is not maintained in the general ledger but maintained as a separate account and named the cash book. All rules for maintaining accounts in the ledger, as narrated earlier, apply to this account also.

Table 31 : Format of a Bank Book

Debit Side (Deposition)				Credit Side (Withdrawals)			
Date	Particulars	J.F. No.	Amount	Date	Particulars	J.F. No.	Amount
					Closing Balance		
Total				Total			

Explanation: Like the cash book, the bank book is a bank account required to be maintained in a ledger. Since the transactions involving banks are large, it is convenient to keep a separate book where all transactions involving banks are posted. This account, therefore, is separately maintained and named the bank book. All rules for posting in other ledger accounts are applicable to this account as well.

Table 32:Format of Stock Register (for Trading Activity)

Date	Particulars	S.B./P.B. Folio	Addition		Deduction		Balance	
			Quantity	Value	Quantity	Value	Quantity	Value

The stock register is very similar to the stocks account. It records the actual closing stock available with the business to help the owner physically verify and accordingly place further orders.

- Date:** The date of transactions resulting in stocks movement is recorded here.
- Particulars:** The details of transactions due to which the stock changes are narrated here.
- Sales book/Purchase book folio number:** The page number of the sales book or the purchase book, where the particular transaction results in addition or deduction of stock, is put here.
- Addition :** Purchase results in addition of stock. The quality of stocks purchased along with its value is put here.
- Deduction:** Sales result in deduction of stocks. The quantity of stocks sold along with their value is put here.





PRACTICAL MANAGEMENT IN BUSINESS

Highlights

This chapter considers various tools by which one may manage a small enterprise better

Economic Order Quantity (EOQ) is the number of units that an FPC should add to inventory with each order to minimize the total cost inventory.

It is the interest of the company to maintain ready cost data to ascertain its profits and also compare it any change in sales, process, etc. therein.

A cash cum- cost sheet is a tool that allows to forecast how much cash is earned and how much is spent on every operating cycle so as to enable the company in taking an informed decision on ways to manage cash.

14.1. Economic Order Quantity (EOQ) in Purchase

Monthly consumption reports and material utilisation reports and, a purchase and stores ledger are critical monitoring tools for an SME. More important is the estimation of EOQ for purchases.

For instance, a Food Processing Unit requires 9,000 pieces of a ‘consumables’ a year. The enterprise works at an average for 280 days a year. The cost of processing an order is Rs. 300 and the carrying cost per kg. of consumables is Rs. 2 for one year. Lead-time for receipt of inputs upon order is six days and the enterprise may keep a reserve stock of five days’ usage. The economic order quantity and the re-order point may be estimated incorporating the formula:

Variations in sales may be different and focused in specific periods. This also need be given due consideration and then the EOQ decided upon.

$$EOQ = \sqrt{2AO/C},$$

where **A** is the annual requirement of input,
O is the ordering cost (communication, transport, etc.) and
C is the carrying cost (storage etc.)

The EOQ works out to 5196 kg. The re-order point may be estimated as follows:

$$\begin{aligned} \text{Daily usage} &= 90,000/300 = 300 \text{ kg.} \\ \text{Re-order point} &= \text{Safety stock X Usage rate} + \text{Lead time X Usage rate} \\ &= 5 (300) + 6 (300) \\ &= 3,200 \text{ kg} \end{aligned}$$

Government policy and related subsidies need also be factored in when computing cost and prices.

Fertilizers and Pesticides: Critical Inputs partly supported by the Government

The government has issued soil health cards, which provide current nutrient availabilities in the soil, and recommended level of input use for the given field. This would greatly benefit in addressing fertilizer use imbalance as the normative levels are derived at field level than at the state level. Recognising several changes in fertilizer technology, production and distribution system, and the need to make the provisions more stringent with respect to quality control, the 'FCO Review Committee' set up by the Central Government reviewed FCO, 1957 and the now in force FCO, 1985 issues on 25.09.1985 came into force with immediate effect. Apart from these, fertilizers subsidy remains a contentious issue which needs to be handled very carefully. Fertilizers subsidy is the second-biggest subsidy after food subsidy. The subsidy on fertilizers, which was Rs. 64,032 Crore in 2009-10 immediately before the introduction of NBS, increased subsequently to Rs. 75,067 Crore in 2014-15. There has been a steady growth in the production of technical grade pesticides in India, from 5,000 metric tonnes (MTs) in 1958 to 102,240 MTs in 1998. The annual production capacity of pesticides in the country is more than 1,50,000 MTs (Industry source) with more than 219 technical grade/manufacturing units, and over 4000 formulation units. A wide range of compounds including insecticides, fungicides, herbicides, rodenticides, molluscicides, nematocides, plant growth regulators, bio-pesticides botanicals and the like have been termed as pesticides. Among these, organochlorine (OC) insecticides have been used successfully in pest management. The introduction of other synthetic insecticides-organophosphate (OP) insecticides in 1960s, carbamates in 1970s and pyrethroids in 1980s; and the introduction of herbicides and fungicides during 1970s-1980s have aided in controlling the pests in both food grain and horticulture sectors.

14.2. Maintaining Information on the Cost Structure of a Business

The Table below presents information on annual cost of production data and activity levels of an enterprise into masala processing unit for the year 2015-16. Maintaining information in this format will facilitate decision making in an enterprise.

Table 33 : Cost of production of an Enterprise for 2015-66

Sales (20,000 packs of 200 gms each @ Rs. 100 each)	20,00,000
Variable cost (20,000 packs of 200 gms each @ Rs. 65 each)	13,00,000
Contribution	7,00,000
Fixed cost	3,00,000
Profit	4,00,000

Illustratively consider the following: the enterprise now receives an offer from a large food retailer on certain specific terms. The retailer offers to buy products from this enterprise at a price 10 per cent more than his current sale price. The retailer, however, guarantees offtake of only 90 per cent of current sale. He also insists that the manufacturer offers his product to no one else. Certain other expenses are likely to rise. The table below summarizes the offer.

1. Offer of increase in prices = 10%	2. Possible reduction in sales = 10% (As the retailer guarantees off take of 90 % alone)
3. Variable expenses increase = 10% (higher quality raw material to be used)	4. Fixed cost increase = 5% (additional expense on Upgrading equipment)

Would the enterprise's profits increase or decrease, if it accepts the offer? The cost structure and the activity of the enterprise, it accepts the offer, is presented in the Table below.

Production	18,000 packs	Total sales realisation	Rs. 19,80,000
Price	Rs. 110 per pack	Total variable cost	Rs. 12,87,000
Variable cost	Rs. 71.5 per pack	Fixed cost	Rs. 3,00,000

Therefore, profit equals Rs. 3, 93, 000. Profit, therefore, decreases if the enterprise accepts this offer. The decision to reject/accept the offer may be made quickly, if an enterprise maintains ready cost data.

A cash-cum-cost sheet allows keeping records of cash and cost. But, more importantly, it helps decision-making on purchase and sales (discount v/s credit) and on structuring of costs to take advantage of leveraging effects of fixed costs on profits, or alternatively, reduce business risk.

A Cash-cum-Cost Sheet for Efficient Decision Making

There are many reasons why an enterprise may run out of cash. Sales may be poor or perhaps containing credit, besides the burden of paying the raw material supplier for credit purchase. Cash goes out even before it comes in. Working capital is used on personal expenses or directed to the purchase of equipment. Short-term funds are diverted to long-term investment.

A cash-cum-cost sheet is a tool that allows to forecast how much cash is earned and how much is spent on every operating cycle. It also shows the structure of costs. When cash is short at the end of one operating cycle, one can take remedial measures and purchase on credit and sell on cash, perhaps by offering discounts over the next operating cycle. One can also strive to convert fixed cost into variable costs when one is confident of sales or margins for the next operating cycle or next few cycles. Even elements of cost such as raw material purchase, which is invariably a variable cost, may be converted to a fixed cost temporarily or for longer periods by means of post-dated cheque payments (with bank guarantee) or higher inventory stockpiling.

One can make entries in a cash-cum-cost sheet for the period of one operating cycle as to plan on purchase and sales decisions as well as on profitability orientation on the next.

14.3. An Illustration on documenting transactions and interpreting a Cash-cum-Cost Sheet

Cash transactions may be recorded on the left page. Cash received, cash disbursed, investments, revenues and costs may be recorded on the right page. Incomes are cash received and costs are cash disbursed.

As an illustration, consider a small vegetable pickle making enterprise. The enterprise had about Rs. 8,00,000 as cash balance as on February 2, 2006 and used it to buy materials worth Rs. 1,00,000 on February 8, 2006.

On February 12, the enterprise again bought raw material for Rs. 70,000 and paid rental charges totalling Rs. 60,000. On February 20, there was sale of products to an exporter for Rs. 1,50,000. On February 25, the enterprise sold more products to another trader for Rs. 7,20,000. On February 28, the enterprise paid wages (to all employees) totalling 60,000. These transactions are recorded in the following cash-cum- cost sheet.

LEFT PAGE (Cash Income-Expenditure data)

Date	Explanation	To/ From	Cash Received	Cash Disbursed	Cash Balance
2/2/2006					8,00,000
8/2	Bought raw material	X		1,00,000	7,00,000
12/2	Bought raw material	Y		70,000	6,30,000

15/2	Paid rent (annual lease) Arrangement paid every 6 months	Z	60,000	5,70,000	
20/2	Sales	A	1,50,000		7,20,000
25/2	Sales	B	7,20,000		8,40,000
28/2	Paid wages (piece-rate)	All employees		60,000	7,80,000
Total			8,70,000	2,90,000	7,80,000

RIGHT PAGE (Cost data)

Start- Up/Investment	Income	Variable Cost	Fixed Cost
8,00,000			
		1,00,000	
		70,000	
			60,000
	1,50,000		
	7,20,000		
			60,000
8,00,000	8,70,000	1,70,000	1,20,000

In the cash-cum-cost sheet above, all expenses are recorded as variable or fixed costs simultaneously. As indicated earlier, such system tool facilitates decision-making on the purchase, sale and ‘outsourcing’ or profitability front. For instance, measures to consider when cash balance is inadequate given the working capital requirement for the following operating cycle, include offering shorter periods for credit sales and a discount for cash sales and suppliers requested for credit. Further, if not very confident of demand in the next cycle, one may also reduce business risk by reducing the fixed cost, perhaps by discontinuing the annual lease arrangement and utilizing the idle capacity of other enterprises on a monthly basis or by employing labour on contract than salary basis and by reducing the stocking of raw material and inputs. Alternatively, one may enhance the potential for increasing returns or margins by converting piece rate to salaried labour if the cash balance is relatively higher and market demand exists. Costs may hence be reduced and margins increased. That is by converting variable costs into fixed costs. Almost all variable costs may be converted into fixed costs and vice versa. Such simple systems in business could help make or break an enterprise.





UNDERSTANDING TOTAL QUALITY MANAGEMENT

Highlights

This chapter shall help us to understand Total Quality Management (TQM). TQM emphasises on continuous improvement. One method used in TQM is Acceptable Quality Level (AQL). It is a statistical measurement of the maximum number of defective goods considered acceptable in a particular sample size.

Bench marking is measurement of the quality of an organisation, policies, products, programs, strategies, etc. and their comparison with standard measurements, or similar measurements of its peers.

The ISO 9000 family of quality management systems is designed to help organisations ensure that they are meeting needs of customers and other stakeholders while meeting statutory and regulatory requirements related to products or service.

Pareto Analysis is a statistical technique in decision making used for the selection of a limited number of tasks that produce significant overall effect.

Quality circle refers to a group of employees who meet regularly to consider ways of improving performance.

15.1 Introduction ^(xxvii)

This chapter offers an orientation to essential tools of Total Quality Management (TQM). TQM encompasses various management, data collection, and presentation modes.

Total quality management emphasises on ‘continuous’ improvement. TQM lays emphasis on:

- ‘external’ customers and consumers. It is necessary to correctly identify the real needs of clients and satisfy them on an ongoing basis. It also targets internal customers viz. various departments within an enterprise.
- securing the information necessary for quality standards, and disseminating it within an enterprise, encouraging continuous improvement.
- gradual but continuous improvement in a competitive environment.

15.2. Some concepts of the methodology

TQM has its basis on certain concepts:

- Business processes involve a mix of material, labour, and equipment to produce a product. An objective of TQM is to reduce variation in processes. Causality for variation in processes needs to be removed for improving standardization and quality.

Some methods such as Gantt chart are elaborated in later chapters some other methods are elaborated in brief in the following sub-sections.

15.3. The methods

There are certain management methods such as acceptable quality level (AQL), benchmarking, ISO 9000, Gantt charts, Just in Time, Pareto analysis, and quality circles. Further, there are modes for collecting data and their presentation such as measures of ‘central tendency’ and ‘dispersion’, geometric moving average, and statistical process control, amongst others.

Acceptable quality level (AQL) offers a sampling and inspection methodology to ensure manufacture and delivery of products of appropriate quality. Benchmarking helps enhance performance by implementing best practices. ISO 9000 is to establish an effective quality management system. ‘Just-in-Time’ offers raw materials to the production line exactly when needed so as to optimize costs related to inventory holding. Pareto analysis strives to segregate critical causes of a problem from the trivial. Quality circles are small group activities that facilitate development of employees and their performance. Elementary statistics such as the mean, median, mode, range and standard deviation are ways of summarizing large sets of data. The first three are measures of central tendency and the last two are measures of dispersion. The geometric moving average method is used to identify trends in small changes in the mean value of a process. Process analysis enables a group to look for opportunities to improve processes. It can also be used to identify standards and measures for critical parts of processes. Statistical process control is to identify when the processes are changing over time. Some of the methods indicated above are elaborated in the following sub-sections.

15.4. Acceptable Quality Level (AQL)

- AQL is used while sampling a batch so that each item inspected is classified as acceptable or otherwise.
- The acceptable quality level may be ‘agreed’, viz. the worst quality which may be considered acceptable as the average ‘per cent defectives’ or ‘defects per 1000 units’ of a process.
- When an AQL has been agreed, all batches or output better than the AQL may be accepted.

AQL sets norms on acceptance and rejection of samples or batches, depending on the size of a sample and number of defects in the sample. This may be mutually agreed between customers and suppliers.

15.5. Benchmarking

Benchmarking helps identify and fill gaps in performance by establishing best practices upon comparing the processes of others. Internal benchmarking serves to compare between different functions in an enterprise. Errors are removed and process performance optimized. Competitive benchmarking compares competitors’ performance on different functions. Critical Success Factors (CSFs) and key processes may be identified. The critical success factors in food processing enterprises may include ideal sourcing and timing of purchase.

15.6. ISO 9000

Installing an ISO 9000 Quality Management System (QMS) in an enterprise involves the following steps.

1. Obtain entrepreneur commitment to the quality management approach.
2. Define the scope of the activities as well as responsibilities of those to be included in the scope of the QMS.
3. Existing systems and procedures may be audited against requirements of the standard.
4. A plan needs to be developed to write necessary and relevant procedures followed by training to enable the employees to write their own relevant procedures.
5. The procedures may be then drafted and validated.
6. A draft quality manual may be prepared and system implemented on a trial basis.

7. Internal auditors may be trained to carry out an audit of the system and its implementation. The same may be revised, thereupon, if necessary.
8. Registration or 'third-party approval' may be secured from an accredited body and the system maintained by internal audit, thereby, enhancing performance.

Standardization of processes ensures that tasks are carried out in a similar fashion regardless of who does them. This ensures consistent and standardized quality for customers.

15.7. Pareto Analysis

It is employed by a team analysing information relating to a problem with a view to deciding the most important factors to be targeted initially in order to have a significant impact on the problem. The objective of this method is to separate the most important causes of a problem from the many trivial ones. Also, to identify the most important problems for a team to work on. The analysis is also called the 80/20 rule. This implies that 80 per cent of the problems are influenced by 20 per cent of the activities and it is important that these 20 per cent should be targeted. Inventory management in food processing enterprises may incorporate this mode to reduce costs of excessive stock piling.

15.8. Quality Circles

Quality circles are small groups of between three and ten to twelve people who pursue similar function or activity. Such a group may meet together regularly for about an hour in a week, often with their own supervisors. They are then oriented to identify, analyse, and resolve problems in their own activity, and if feasible, implement solutions themselves. Pareto analysis techniques may be utilized to focus on specific issues.

15.9. Measures of Central Tendency and Dispersion

This method encompasses measures such as arithmetic mean, median, mode, and standard deviation. These are options to summarize data and describe large volumes of data. These measures are employed to identify trends in data or compare large volumes of data and facilitate decision-making.

The mean is the simple arithmetic average of all relevant data. The summation of data are divided by the number of data considered to estimate the mean. A weighted average or mean, viz. giving proportional weights to 'sale price' and 'purchase price' will help arrive at one measure for these in food processing enterprises that have a wide market or product-mix given seasonality in demand and supply. Weights may also be accorded to arrive at one representative sale or purchase price for inputs and output whose costs and prices vary significantly every few months. Business plan preparation, for instance, is considerably facilitated by employment of this tool.

The median is the mid-point, viz. the point above which and below which half of the data under consideration lie in. The mode is the most frequently occurring value or data. The mean, median, and mode are measures of central tendency.

The standard deviation is the root mean square deviation of all items considered from the mean. It is estimated by finding the difference of each item from the mean and squaring it, and finally calculating summation of all squared deviations. The sum is then divided by the number of items involved less one. The square root is then estimated:

$$\sqrt{(X_i - \bar{X})^2 / n - 1}$$

Quality is important not only at the processing stage but also in activation, and must be in-grained into the mind-set of FPC members.

Quality and Compliance requirements for large firm marketing ties

The producers and processing companies operating in vertically integrated supply chain are supported or importers in the implementation of private standards and guidelines. Importers of transnational companies coordinate most of the chain activities, implement strict food safety and quality measurements in tandem with the co-operatives, and employ well-trained quality inspectors within the vertically integrated supply chains. Many of these companies, including Carrefour, trade fresh produce under their own brand names and, therefore, are very much focused on the safety and quality of their products. In the case of co-operatives in Nashik like MAHAGRAPES, farmers not only receive the information about the local mandi prices and change in national regulations, but also are informed about the public food (such as phytosanitary and MRL regulations) and quality requirements, (such as grading and packaging requirements) of the importing country and the specific demands of the retailer by the importer. This is also prevalent in case of companies which have entered into contract farming for tomato cultivation in Punjab, Haryana and Rajasthan; for Gherkins in Karnataka and a variety of FFV in Tamil Nadu, Maharashtra and Andhra Pradesh. The conformity assessment procedures associated with SPS standards were found difficult and costly to put into practice within typically long supply chains in India.

In Himachal Pradesh, since packing is costly, growers who had to sell through APMC markets often pack even 22 to 30 kgs of apples in a box that is designed to hold only 20 kgs. As a result, apples deteriorate in quality as they rub against each other during their transport from Himachal to the final Azadpur terminal market. Long periods in the sun further damage the apples that are transported in unrefrigerated trucks. Moreover, at APMC markets, the apple cartons are unloaded for the buyers to inspect so that the auction can take place. This additional handling and transportation further damage the apples. Basically, apples are not GMP certified and not as per global codes and standards like CODEX and HACCP.





PROJECT ACTIVITY PLANNING AND IMPLEMENTATION

Highlights

Project management involves co-ordination of various activities that are interrelated and project planning and scheduling requires technical considerations.

Project scheduling establishes the time and sequence of the various phases of the project.

A Gantt chart provides a graphical illustration of a schedule that helps to plan, coordinate, and track tasks in a project.

16.1. Introduction

This chapter introduces tools of project planning such as Gantt Charting.

A project involves a set of activities with a definite beginning and an end. Project management involves co-ordination of various activities that are interrelated, and project planning and scheduling requires technical considerations. Activities that are scheduled need to be done in a particular order after identifying preceding relationships. Project planning and implementation includes activities that result in a course of action for a project. Goals should be set for the project, resources committed, completion time be determined, and the priority of activities defined. The areas of responsibility must be identified and assigned. Similarly, time and resource requirements to implement the activities must be forecast and budgeted. Project scheduling establishes the time and sequence of the various phases of the project. In project scheduling, the activities of the project are considered and are related to one another and to the time frame.

16.2. The Gantt Chart

A Gantt Chart shows relationship of various activities over time. The Table below gives the symbols used in a Gantt Chart. An open bracket indicates the scheduled start of the activity and a closing bracket indicates the scheduled completion. A heavy line indicates the currently completed portion of the activity. A caret at the top of the chart usually represents current time.

Table 34 : Symbols in a Gantt chart

Symbol	Representation
[Commencement of an activity
]	Completion of activity
[_____]	Actual progress of the activity
V	Point in time where the project is presently

A Gantt Chart for project scheduling which appears below is as in the second week of implementation.

Project Activity	Week 1	Week 2	Week 3	Week 4
Placing orders for equipment				
Training labour				
Recruitment of workers				
Installation of equipment				
Trial run				



SECTION - IV

FPC MANAGEMENT AND REGULATORY INPUTS-CASE ILLUSTRATION





CHAPTER 1

CASE STUDIES: TYPICAL ACTIVITY PROFILE OF SOME FPCS IN MAHARASHTRA-INCOME AND EXPENDITURE MIX

Highlights

An FPC earns from a range of activities and services. It can earn revenue by way of input facilitation by supply of seeds, fertilizers and pesticides. It can procure stocks directly from distributors and then sell the same to its members and other farmers at a price lower than the market price and yet earn good profit on the same. FPCs are also earning income by way of providing cleaning and grading services for grains, cereals and fruits and vegetables. For cereals and grains, they are charging Rs. 60 - 90 per quintal from members. Non-members are usually charged higher. FPCs are also earning revenue by facilitating sale of cereals and grains at MSP, by levying auction fees (from traders) for facilitating auctioning services from a few APMC commission agents and traders. FPCs also earn from NCDEX futures trading.

Sant Changdev Tapi Purna is a Farmer Producer Company located in Jalgaon. The FPC is selling fertilizers through its centre and total turnover from this operation is about Rs. 20 Lakh. It has also started production of Bengal Gram seeds in 15 acres of land. Further, it has been involved in cultivating and supply of about 1000 MT of maize to CP Seeds at a premium rate (about Rs.200 per quintal over prevailing market price).

Karamai Agro Producer Company is a Farmer Producer Company located at Pune. The FPC is operating a cleaning and grading and a dal mill unit as a Farmer Common Service Centre (FCSC). Presently, the company is also selling fertilizers to its members and its total turnover from this activity is about Rs. 1.10 Crore. The company is also involved in production of Soybean seeds in 28 acres of land, in which the turnover of the company (in previous year) was Rs.2.38 Lakh. Notably, the company primarily sold its soybean seed production output to Krushi Vigyan Kendra (KVK) of Baramati.

Solapur Agro Producer Company is an FPC located in Solapur. Presently, the company is selling fertilizers and pesticides and has made a profit of about Rs. 35,000 in current financial year. The company is also pursuing production of tur seed in over 120 acres of land; notably, in which, the turnover of the company was Rs. 2.15 Crore (previous year) as it facilitated the procurement of tur by Government of India.

Naths on Farmers Producer Company is located in Pune. Presently, it is selling pesticides and total turnover from this is Rs 2 crore. It has also started the production of Soybean seed in 40 acres of land, in which the turnover of Producer Company was Rs. 10 Lakh for last year.

Sai Pravara is a FPC located in Ahmednagar. In previous year, the company sold tur to SFAC which generated a turnover of Rs. 4.50 Lakh. Presently, the company is also selling pesticides at its centre and total turnover from the activity was about Rs. 1.25 Crore.

Bhimaghod Farmer Producer Company is located in Pune. Presently, they are selling pesticides at their centre and total turnover from this was Rs. 24 Lakh.

Amarsinh Agro Producer Company, located in Ahmednagar, has recently worked with SFAC, NAFED and the

State Government of Maharashtra to procure and supply 790 MT, 10,000 MT and 17 MT of Tur respectively, under the MSP scheme in 2017-18. So, the company sold around 11,000 MT of tur at the rate of Rs.50, 500 per MT or about Rs. 5 crores and collected a service charge of Rs. 58 Lakh (or 1% of sales). The FPC had a turnover of about Rs. 40-45 Lakh from various other services provided to members last year.

Pratibha Farmer Producer Company is involved in the cleaning and grading of soybean, chana, wheat and tur. The FPC has achieved a turnover of about Rs.25 Lakh previous year, and is involved in providing both input facilitation services as well as primary processing services in related commodities.

1.1. Introduction

A study of the operations of an FPC reflects the various revenue and income streams for viable and sustainable operations. The revenue streams may arise from a range of activities from input facilitation, primary or secondary processing, MSP procurement, market linkage services, etc.

1.2. Revenue Models for FPCs

By way of illustration, an FPC has a revenue Model comprising of the following:

Input Facilitation:

About Rs. 100 Lakh worth of seeds, pesticides and fertilizers are sold through dealership agreement yielding implicit net income of 15 Lakh to the firm or FPC. The input facilitation services by an FPC basically offer a discount of 7.5 percent to member farmers and retain a net profit margin of 7.5% percent on sales. The gross margin on sale (including manpower costs, retail charges etc.) is 20 percent.

Primary processing (cleaning and grading) services:

The FPC facilitates cleaning and grading of about 2, 500 MT of tur and Sorghum per annum in its FCSC. It has a cleaning and grading unit with a capacity of 1.5 TPH. User charges are at the rate of about Rs. 80 per quintal or Rs. 800 per tonne. The gross revenue from this operation is therefore Rs. 20 Lakh per annum while net income is about Rs. 6 Lakh after deducting costs on manpower, power and other operational expenses of about Rs.14 Lakh. Typically, FPCs charge between Rs. 60 - 90 per quintal from members and non- members. Non- members are usually charged higher.

Minimum Support Price related facilitation:

This activity yields around Rs. 3 Lakh as net income through levy of 1% service charge for procurement of 3 crore worth of tur at the rate of about Rs. 5000 per MT. MSP based facilitation of commodity sales by FPC enables the farmers to attain higher remuneration compared to that prevailing in local markets. For example, in tur procurement (last year), the MSP was Rs. 5050 per quintal while market rates were barely Rs. 3800 per quintal.

Auction fees collected (from traders):

The facilitation of auctioning services to a few APMC commission agents and traders yields around Rs. 1 Lakh upon Rs. 100 Lakh traded per year on the basis of one percent services charges levied on the commission agents and traders.

Income from NCDEX Futures trading: This yields about Rs. 5 Lakh by trading 30 MT of a commodity.

Therefore, a wide range of revenue and activity-mix may be visualised for FPCs:

Input Facilitation

With regard to input facilitation services that may be offered by an FPC, the critical constraint addressed has a reference to the high and rising prices of farm inputs and limited quality. The related intervention includes the FPC serving as dealers or distributors of seeds, pesticides and fertilizer manufacturers and supplying such inputs to member firms. The provision of such services involves securing licenses as well as identifying manufacturers and inputs to deal in. The impact of this intervention may be viewed in terms of a dealer discounts or margin of a simple average of even up to 20% of inputs sold. As a matter of fact, an FPC with a “catchment area” in terms of member holdings of about 1000 acres could easily have a turnover from this activity of about Rs. 100 Lakh.

FPCs into input facilitation services

Sai Parvara FPC in Ahmednagar district has a turnover from input facilitation of about Rs 65 Lakh. Amarsinh FPC, also in Ahmednagar has a turnover of about Rs. 90 Lakh from input facilitation. Sant Changdev Tapi Purna FPC in Jalgaon has a turnover of Rs. 60 Lakh. The Solapur Agro Producer Company in Solapur has a turnover of Rs. 20 Lakh. Bhimaghod FPC in Pune has a turnover of Rs. 30 Lakh from input facilitation services alone.

Custom Hiring

With regard to custom hiring services that may be offered by an FPC, the critical constraint addressed is decreasing labour availability, high cost of farm mechanisation from the point of view of typically small and marginal farmers and unavailability of equipment when required during peak times of sowing or harvesting etc. The related intervention includes providing custom hiring services like tractors and or attached farm equipment like harvesters, sprayers etc. The provision of such services by an FPC involves identification of manufacturers and distributors based on crop varieties. The impact of the intervention may be in terms of availing such equipments (like tractors, harvesters, combines, mulching paper laying machines, etc.) even at discounts of over 30% and cost reduction in cultivation of even 5% or even Rs. 500 per acre per harvest. Through custom hiring intervention, there is also timely sowing, weeding, application of inputs and harvesting of crops ensuring farmers earn reasonable prices.

FPCs providing Custom Hiring Services

Krushijeevan Agro FPC in Pune district has a turnover of Rs. 20 Lakh on account of providing custom hiring services. Bhoose Agro FPC in Solapur has realised an annual turnover of Rs. 10 Lakh from providing similar services. Vikas Agro PC, Katpur Agro PC as well as Raosaheb Patil Agro PC of Latur have been providing custom hiring services to members through Mahindra Tractor.

Processing (Primary or Secondary) through Common Service Centre

In the context of primary or secondary services offered by an FPC, the critical constraint addressed is inadequate primary processing as well as packaging required for direct marketing; as well as secondary processing facilities. The related intervention comprises deploying cleaning, grading and packaging machines for food grains and horticulture processing. The provision of such services includes identification of appropriate cleaning and grading machine, gravity separator and bag sealing equipment in the case of cereals and pulse products, grading tables, plastic crates and small cooling chambers for horticulture based FPCs. The likely impact of the intervention is a minimum 10 % of value increase for commodity (of between Rs. 150-200 per quintal).

FPCs into Processing Activity

Bahulaone FPC in Pune has a turnover of Rs. 1.2 Crore from vegetable related processing and sale. About 100 FPCs under MACP are into related activity.

Futures Trade

In the context of Futures Trade related services offered by FPCs, the critical constraints addressed has reference to low price of commodities in some periods and distress sale of farmers in some seasons. The related interventions include that the FPCs should be linked on trading platforms like NCDEX for Futures Trade. It also includes facilities for storage in accredited warehouses, warehouse receipt financing facility and working capital facility. The impact of the intervention may be in terms of price discovery for the next 3 to 4 months and includes 5% to 10% better price realization (or about Rs.200 per quintal). There is also access to finance at 9% to 12% interest rate while access to storage is provided at 50% discount rate. There is also an income of Rs. 30 Lakh to a typical FPC which caters to the needs of 400-1000 farmers.

FPCs into Futures Trade

Swaroop FPC in Aurangabad district has traded maize and soybean and received loan from NABKISAN of Rs. 25 Lakh for online trading. There are about 30 FPCs registered in Maharashtra, of which 10 FPCs have already traded in soybean, maize, turmeric and chana while 8 FPCs have received finance from formal sources for Futures Trade. Notably, there are 700 BoDs of FPCs who have been trained on Futures Trading in 20 districts of Maharashtra.

Working Capital

With regard to working capital, the critical constraints addressed are that there is lack of finance for WC, unavailability of urban collateral and limitation of Nationalized Banks to finance the FPCs. The related interventions include credit linkages of FPCs for working capital. It also includes formation of FPCs, liaisoning with FIs, guiding FPCs on loan documentation, preparation of business plan and post-sanction guidance. The impact of the intervention is that the selling of produce should be at the right time and right place (no distress sale). There is a 5% to 10% better price realisation (or about Rs.200 per quintal), and capacity utilization of common facility centre for storage or warehousing. Also, an income of Rs.50 Lakh to a typical FPC that caters to the needs of 400-1000 farmers.

Working Capital

NABKISAN Finance Limited has supported 12 FPCs to the tune of Rs 3.5 Crore (at the rate of 11% to 12% p.a.). Samunnati Value Chain Finance has supported 40 FPCs for Rs. 8 Crore (at the rate of 14% to 21% p.a.). Bank of Baroda has supported 10 FPCs for Rs. 3 Crore (at the rate of 9.5% p.a.) Ananya Finance and FWFB has supported 3 FPCs for Rs. 0.7 Crore (at the rate of 12% to 13%)

Seed Production

With regard to seed production, the critical constraints addressed are that there are low quality seeds, high price of seeds and timely availability of seeds. The related interventions include facilitation of seed production, seed process-

ing and seed supply. It also includes identification of Agri-universities or firms, facilitation in sourcing of breeder and foundation seeds, preparation of business plan and facilitation by way of credit linkages. The impact of the intervention may be good quality seeds available to farmers at reasonable prices and there is uniform seed production by the FPC which leads to successful market linkages. There is also an income of even Rs. 7 Lakh per acre over time-span of 2 years through seed production.

FPCs into Seed Production

Amarsinh FPC has a turnover Rs.1.25 crore in seed production and marketing initiative of Bengal gram. Typically, FPCs may also consider 10-20 acres of total land holdings of members for seed

Capacity Building of BoDs

With regard to capacity building, the critical constraints addressed is that there are limited intrapreneurial and managerial skills amongst BoDs and lack of basic bookkeeping skills. The related interventions include training of BoDs with practical management inputs and business planning for growth. It also includes training of BoDs on business planning and management, accounts and book keeping, Futures Trading and statutory compliances. The impact of the intervention may be viewed in terms of ensuring that FPCs are strengthened through efficient BoDs in terms of intrapreneurial, managerial and book - keeping skills. There is need for awareness on quality and compliances (e.g. traceability) standards, efficient management of FPC and good governance structures.

Capacity Building of BoDs

Capacity Building training of about 3000 BoDs from 300 plus FPCs across Maharashtra, Rajasthan, Tamil Nadu & Punjab has been undertaken by the ABPF Team in Maharashtra and Rajasthan. This has contributed to BODs becoming more aggressive and intrapreneurial in approach.

Statutory Compliances

With regard to statutory compliance the critical constraints addressed by an FPC is that there is lack of awareness among BoDs on statutory compliances and mandatory licensing of Farmer Producer Companies.

The related interventions include training of BoDs on statutory compliances like Udyog Aadhaar, DML and FSSAI. It also includes license application process and prescribed quality standards. The impact of the intervention is that direct marketing should be facilitated and there should be awareness on required government licenses to operate a Farmer Producer Company.

Statutory Compliance is critical

Statutory Compliance related training of about 3000 BoDs from 300 plus FPCs across Maharashtra has been undertaken by the ABPF in Maharashtra. This also enhances level of professionalism in an FPC.

Market Linkages

With regard to market linkages the critical constraints addressed by an FPC is that farmers have limited access to markets, distant markets, distress sales, malpractices in the mandi and lower price realisation by farmers. The related interventions are tie-up with large food processing firms for primary produce, contract farming and/or MoU based direct marketing. The scope of intervention includes identifying processors or buyers, facilitation of MoUs with processors and buyers as well as facilitation of trade. The impact of the intervention includes transfer of better seed varieties and good agricultural practices. There is a reduction in input costs of seeds and insecticides. Also, there is a shift from water intensive crops like barley and wheat in states of Rajasthan and Maharashtra respectively. There are two harvests in comparison to alternate pulses cropping (in case of maize).

Efficient Market Linkages

Market linkages have been established by several FPCs including Sai Pravara with large processors. There is an increase in production of maize from about 20 Qtl to 35 Qtl per acre with premium of Rs. 50 per quintal from CP seeds. The target is procurement of 50,000 MT maize from Maharashtra by year 2020 from more than 12,000 farmers. Also, an increase in output from 16 Qtl to 25 Qtl per acre in Barley has been realised through seeds supplied by Soufflet to 10,000 farmers in Rajasthan (target 30,000 farmers).

Evolving Apt Agri-Marketing and FPO Policy

With regard to evolving apt Agri-Marketing and FPO Policy, the critical constraint that may be addressed is that there are limited contract farming initiatives, limited development of alternate markets, limited FPC development initiatives and limited impact of intervention on farmer livelihoods. The related interventions include organising policy workshops and meets. The provision of such services consists of evolving of apt Agri-Marketing and FPO policy which includes: market fee of private yards and contract farming rules –DML. The impact of the intervention includes actual realisation of “doubling of farmers’ income” clarion by Hon P.M.

Advocacy for apt Agri-Marketing & FPO Policy

State Governments are prioritising FPC formation (A.P, Maharashtra and Tamil Nadu). A five-year IT holiday for FPOs with turnover more than Rs 100 Crore has been declared by the Centre.

1.3. Case Studies on FPC: Revenue streams

1.3.1. Sant Changdev Tapi Purna is a farmer producer company located in Jalgaon. It has a total of 536 farmer members. About 200 members are female. The farmer producer company is operating a Maize Drying Unit under the umbrella of FCSC. The major crop dealt with is Maize. Presently, the FPC is selling fertilizers through their centre and total turnover from this operation is Rs. 20 Lakhs. They have also started the production of Bengal Gram seeds in 15 acres of land. They have not only secured Direct Marketing License (DML) but also have their own godown of 1000 sq.ft. for machineries and tools. Now, they need financial support for a larger warehouse. Tapi Purna has been involved in cultivation and sales of about 1000 MT of maize at a higher rate of about Rs.200 per quintal (over market price) to CP Seeds.

1.3.2. Karamai Agro Producer Company is located in Pune. It has a total of 650 farmer members. About 247 members are female. The farmer producer company is operating a cleaning grading and a dal mill unit as a Farmer Common Service Centre. The major crops it deals with are Bengal Gram and Soybean. Presently, the company is selling fertilizers in its centre and total turnover from this activity was about Rs. 1.10 crore. The company has also started the production of Soybean seed in 28 acres of land, in which the turnover of producer company was Rs.2.38 Lakh(in the previous year) through sale of seeds to Krushi Vigyan Kendra of Baramati region. Presently, PC members are cultivating seed crops of Bengal Gram and Soybean as well as the company secured Direct Marketing Licence. The FPC is now planning establishing a warehouse.

1.3.3. Solapur Agro Producer Company is located in Solapur. It has a total of 662 farmer members. About 100 members are female. The farmer producer company is operating a cleaning grading and a dal mill unit as an FCSC. The major crop dealt with is tur. Presently, the company is selling fertilizers and pesticides in its input facilitation centre. The company has attained indirect benefits for bulk purchase of pesticides and fertilizers from dealers with a net profit of Rs. 35 thousand. FPC members have also started production of tur seed in 120 acres of land, in which the turnover of producer company was Rs. 2.15 Crore in previous year as it performed as an aggregator for Government for procurement of tur. The FPC has also secured Direct Marketing Licence. Now, the FPC requires financial support for constructing a warehouse.

1.3.4. Nathson Producer Company is located in Pune. It has a total of 485 farmer members. About 149 members are female. The farmer producer company is operating a vegetable cleaning and grading unit as an FCSC. Presently, the company is selling pesticides in its centre and total turnover from this is 2 Crore. FPC members have also started the production of soybean seed in 40 acres of land, in which the turnover of producer company was Rs. 10 Lakh in previous year, wherein, the FPC sold its seeds to Malegaon Sahakari Factory. The FPC has also secured DML.

1.3.5. Sai Pravara Shetkari is a farmer producer company located in Ahmednagar. It has a total of 500 farmer members. About 175 members are female. The farmer producer company is operating a cleaning and grading and a dal mill unit as an FCSC. The FPC has received working capital of Rs. 30 Lakh from NABKISAN finance. Also, the company sold their cereals and pulses to SFAC and achieved a turnover of Rs. 4.50 Lakh. Presently, the FPC is selling pesticides and total turnover from this activity is Rs. 1.25 Crore, as it successfully negotiated 10% extra benefits through volume purchase of pesticides and fertilizers from dealers. The company has also secured Direct Marketing Licence DML.

1.3.6. Bhimaghod Farmer Producer Company is located in Pune. It has a total of 370 farmer members. About 40 members are female. The farmer producer company is operating a vegetable cleaning and grading unit as an FCSC. Presently, it is selling pesticides in its centre and total turnover from this is 24 Lakh. The company has secured DML as well as Export Licence. Bhimaghod FPC, operates a mini dal mill, provides input facilitation services to members, and also markets horticulture produce of members.

1.3.7. Amarsinh Agro Producer Company, located in Ahmednagar has recently worked with SFAC, NAFED and the State Government of Maharashtra to procure and supply 790 MT, 10,000 MT and 17 MT of tur respectively under the MSP scheme in 2017-18. In this period, the FPC sourced about 10,807 MT of tur from about 11,000 farmers. About 10 quintals (1MT) per farmer was the average quantity sourced. The FPC has a member base of barely 300 farmers with 1-2 acres per farmers of land deployed for tur cultivation and balance is used to produce other commodities. The Company, thus, virtually collected on credit and sold to SFAC, NAFED and the State Government from thousands of other farmers in the Ahmednagar region. This initiative was conducted during the period of December 16th to May 31st 2016-2017. Typically, 1 acre yields about 0.6 to 1 MT of tur as production output and hence each farmer made an

additional income (over market price) of about Rs. 10,000 to 20,000 from 1-2 acres of land under tur cultivation. This was because tur was being sold at the market rate of 3,500-4000 per quintal. While the MSP was pegged at Rs. 5050 per quintal; implying a gain of about at least Rs.1000 per quintal. The Producer Company has sold 11,000 MT of tur at the rate of Rs.50,500 per MT or about Rs.5 crores and is collecting a service charge of Rs. 58 Lakh (or 1% of sales). Team GT-ABPF has supported the activities of the FPC through facilitating a short-term loan of about Rs.50 Lakh from “Samunnati”. This loan was critical to undertake the procurement activity as many expenses from transport to store and deliver tur is yet to be received from SFAC or NAFED. As a matter of fact, 1% service charge or Rs.58 Lakh took some time to be transferred to the Company and the short term loan from Samunnati helped them meet working capital needs and meet various expenditures during that period. Also, the team ABPF helped the FPC to prepare and submit a business plan for FCSC comprising of primary cleaning plus packaging unit. A critical weakness of this producer company is adequate warehouse to store products and enhance output. The company has Rs.10.75 Lakh other than pre-cleaners as fixed investment. The company is now also keen to explore the “futures” option and requires higher degree of working capital. Amarsinh has FSSAI license as well. It has also secured vendor registration with firms like Walmart. This is enabling the producer company to supply to a range of MNCs and large firms. The latter include Tasty Bites, Big Bazaar of the Future Group amongst others. The company buys and sells onions from its 300 odd members as well as from a “catchment” of 10,000 farmers in the region. It markets its produce to K.B Exports. The FPC has the capacity to supply even 10 vehicles loads of onion, each carrying upto 15 MT of onion every month. There is apparently rampant variation in the prices of onion, i.e., from Rs 10 per kg to even Rs 28 per kg between the month of May and August. By targeting the alternate market of “Tasty Bites” and the “Future Group”, member farmers in such transaction earn about Rs 1 per kg as additional price. With production of about 10 MT per acre, farmers apparently earn about Rs.10,000 as additional incomes through this alternate, more direct, market channel. To facilitate procurement and sale of commodities like onion and pomegranate, Team GT- ABPF helped the FPC realise Working capital limits to the tune of Rs.50 Lakh. The FPC was supported by “Samunnati”, a MFI, at about 18 per cent as rate of interest. The FPC is now looking for higher limits of even Rs.1.5 crore for their procurement and sales as well as bolero pick up vehicle. The FPC is operating a common facility with basic grading and sorting facilities. The FPC is also into Bengal gram seed procurement, production and marketing for which their sale rate is Rs 68 per kg. The FPC has a turnover of about Rs.40-45 Lakh for various services provided. In addition to enhance WC for work in onion, pomegranate and Bengal gram seeds, the FPC is also looking towards establishment of a seed processing plant as well as warehousing facility as part of expansion plans.

1.3.8. Pratibha Producer Company is involved in the cleaning and grading of soybean, chana, wheat and tur in its FCSC comprising of a shed of 1500 sq.ft. The FPC has a turnover of about Rs.25 Lakh and is involved in providing both input facilitation services as well as primary processing services in related commodities. Presently, it is exploring assistance of Rs.25 Lakh to establish storage infrastructure as well as Rs.10 Lakh as working capital assistance.





CHAPTER 2

HEALTHY FINANCIAL STATEMENTS-PRESENTATION TO FINANCIAL INSTITUTIONS

Highlights

This chapter offers a comparative analysis between two FPCs, namely Agasti Farmers Producer Company Ltd and Raosaheb Patil Agro Producer Company Ltd. This comparison is undertaken with respect to the management ratios which financial institutions may consider for loan appraisal.

Current Ratio measures the ability of a company to pay or rather cover its short term liabilities with its current assets.

Quick Ratio measures the level of the most liquid current assets available to cover current liabilities.

Debt equity ratio compares the company's total debt compared to its shareholder's equity contribution.

Return on Equity is expressed as percentages and refers to return generated compared to the equity contribution.

Return on Capital Employed is expressed as a percentage and refers to return generated compared to the sum of equity and debt funds deployed

Asset turnover ratio is an efficiency ratio that measures a company's ability to generate sales from its assets by comparing net sales with average sales.

Stock turnover ratio is the ratio showing how many times a company's inventory is sold and replaced over a period of time. (typically, one year)

Debtors Turnover Ratio is an activity ratio measuring how efficiently a firm uses its assets and its efficiency in collection of receivables.

Net-worth is the amount by which assets exceed liabilities and may also be considered as equity reserves. Working capital is a financial matrix which represents operating liquidity available.

2.1. Introduction

Many FPCs are presently seeking working capital to enhance their performance. In this regard, financial institutions typically undertake financial ratio analysis prior to sanctioning assistance. In this chapter, two FPCs are considered. These are seeking working capital assistance to grow their activities.

2.2.1. Agasti Farmers Producer Company Ltd.

Agasti FPCL is located in Akole block of district Ahmednagar (Maharashtra). The Company was incorporated in Nov 2015. The enterprise has a cleaning and grading machinery which it uses for cleaning and grading of grains and pulses. The company has an authorized capital of Rs. 10 Lakh and paid up capital of Rs. 3.50 Lakh. It has 269 registered members till date. The Company had a turnover of about Rs. 2 thousand only in year 2015-16 while about Rs. 17.42 Lakh in 2016-17. Out of the turnover achieved in 2016-17, about Rs.9.51 Lakhs earned from fertilizer sale, about Rs.6.45 Lakh from Flower Sales, about Rs. 1.42 Lakh from transport receipts and rest is interest received in bank account.

2.2.2. Raosaheb Patil Agro Producer Company Ltd.

Raosaheb Patil Agro PCL is located in, Ausa block of district Latur (Maharashtra). The company was incorporated in Dec. 2014. The company has cleaning and grading machinery which it uses for cleaning and grading of grains and pulses. The company has an authorized capital of Rs. 5 Lakh and paid up capital of Rs. 5 Lakh. It has 275 registered members till date. The Company did not achieve any turnover in the year 2015-16, whereas in 2016-17, it had a turnover of Rs. 3.54 Lakh. Out of the total turnover achieved in 2016-17, about Rs. 1.78 Lakh was received from MAHA FPC as commission income for tur procurement under the minimum support price (MSP) initiative, about Rs. 1.24 Lakh from processing of produce (job work)of farmers while around Rs.51 Thousand is against amortization of government grant.

Management ratios

The important management ratios from the appraisal perspective of a typical financial institution may be considered as follows:

- a. Current Ratio: (Current Asset or Current Liabilities): The current ratio measures the ability of a company to pay or rather cover its short-term liabilities with its current assets
- b. Quick Ratio: The quick ratio, also known as the acid-test ratio, is a liquidity ratio that further refines the current ratio by measuring the level of the most liquid current assets available to cover current liabilities. The quick ratio is more conservative than the current ratio because it excludes inventories and other current assets, which generally are more difficult to turn into cash. A higher quick ratio means a more liquid current position
- c. Debt- Equity Ratio: The debt-equity ratio is another leverage ratio that compares a company's total debt to its total shareholders' equity. A lower percentage means that a company is using less leverage and has a stronger equity position
- d. Return on Equity: It is expressed as a percentage which refers to return generated compared to the equity contribution
- e. Return on Capital Employed: The return on capital employed ratio, expressed as a percentage, complements the return on equity ratio by adding a company's debt liabilities, or funded debt, to equity to reflect a company's total "capital employed". It is a measure of a company's profitability

- f. **Asset Turnover Ratio:** The asset turnover ratio is an efficiency ratio that measures a company's ability to generate sales from its assets by comparing net sales with average total assets. In other words, this ratio shows how efficiently a company can use its assets to generate sales
- g. **Stock Turnover Ratio:** Stock turnover is a ratio showing how many times a company's inventory is sold and replaced over a period of time
- h. **Debtor Turnover Ratio:** The debtor turnover ratio is an activity ratio measuring how efficiently a firm uses its assets. Debtors turnover ratio can be calculated by dividing the net value of credit sales during a given period by the average accounts receivable during the same period.

i. Net Worth: Net worth is the amount by which assets exceed liabilities.

Now let us see the ratio analysis of the Balance Sheet as on 31/03/2017 of both the companies-

Table 35 Analysis of the Balance Sheet as on 31/03/2017 of Agasti FPC and Raosaheb Patil Agro Private Limited.

Particulars	Ratio	Standard Ratio	Agasti FPCL		Raosaheb Patil Agro PCL	
			2017	2016	2017	2016
Current Ratio	Current asset Current liability	2:1 or higher	0.78	0.43	0.96	90.00
			A Higher Current Ratio indicates that Raosaheb Patil has higher ability to recover its current liabilities with its current assets as compared to Agasti FPCL. Although both the companies have current ratio lower than the standard.			
Quick Ratio	Quick Assets Current Liability	1:1 or higher	0.30	0.43	0.96	90.07
			A higher quick ratio indicates that Raosaheb Patil APCL has more liquid current position as compared to Agasti FPCL. Although both the companies have quick ratio lower than the standard. This indicates that both firms are in risky position with respect to meeting current liability.			
Debt Equity Ratio	Total Debt Shareholder's Equity	2:1 or less	5.25	1.34	1.25	0.01
			A higher debt-equity ratio in case of Agasti FPCL indicates that the company has a relatively weak equity position.			
Return on Equity	EBIT Shareholder's Equity	>=25%	0	0	27.7%	0
			Raosaheb Patil APCL has ROE greater than standard rate, hence it means it has good ROE. Since Agasti FPCL has a loss, hence ROE is not calculated.			
Return on Capital Employed	EBIT Capital Employed	>=12%	0	0	27.7%	0
			Raosaheb Patil Agro PCL has ROE greater than standard rate, hence it means it has good ROE. Since Agasti FPCL has loss, hence ROE is not calculated.			
Asset Turnover Ratio	Net Sales Average total Assets	Typically 3 times	2.04	0.01	0.093	NA
			Agasti FPCL has higher ability to generate sales from its assets as compared to Raosaheb Patil Agro PCL			

Stock Turnover Ratio	Sales Average Stock	Typically 5 times	5.09	0	0	NA
			Agasti FPCL has ratio of 5.09 means that its inventory is sold and replaced 5 times during the period of sales. Since Raosaheb Patil Agro PCL has no stock, hence the ratio cannot be calculated.			
Debtor Turnover Ratio	Net Credit Sales Avg. Debtors	Typically 5 times	19.22*	0	0.31*	NA
			This indicates that Agasti FPCL has higher capability to recover its debtors.			
Net Worth	Total Assets - Total Liabilities	Should be Positive	1.95	2.05	16.82	5.55
			There is reduction in Net worth of Agasti FPCL whereas increase in Net worth of Raosaheb Patil APCL, which indicates that Raosaheb Patil APCL has good financial health.			

* considering total sales as credit sales

2.3. Assessment of Financial Health

1. Management of Working Capital

Working capital is a financial matrix which represents operating liquidity available to a business, organisation or other entity, including government entity. Along with fixed assets such as plant and equipment, working capital is considered as a part of operating capital. Gross working capital is equal to current assets. Working capital is calculated as current assets minus current liabilities. If current assets are less than current liabilities, an entity has a working capital deficiency, also called as working capital deficit. Positive working capital is required to ensure that a firm is able to continue its operations and that it has sufficient funds to satisfy both maturing short-term debt and upcoming operational expenses. The management of working capital involves managing inventories, accounts receivables and payables, and cash.

2. Analysis

Raosaheb Patil Agro Producer Company Ltd has better indicators vis-a-vis standards in terms of:

- Quick Ratio is approximately equal to standard ratio
- Debt Equity Ratio is better than the standard ratio
- The Return on Equity and Return on capital Employed are higher than the standard ratio
- Net worth of the company is very high comparatively indicating good financial health.

Hence Raosaheb Patil Agro Producer Company has received financial support from NABKISAN.

2.4. Terms of different Financial Institutions for financing FPCs

The following Financial Institutions are currently financing the FPCs in Maharashtra:

2.4.1. NABKISAN Finance Ltd.

The NABKISAN Finance Ltd., a subsidiary of NABARD, is an NBFC for funding the FPCs for their working capital and term loan needs. NABKISAN finances only those companies which are at least 1-year-old. It normally provides working capital loan with ROI at the rate of 11-11.5%. It finances companies which are into trading or manufacturing of pulses, cereals, fruits, vegetables, cash crops, etc. It usually provides loan for a period of less than 1 year. The entire loan has to be repaid at the end of the loan term. It requires collateral in the form of machinery and building acquired by the FPC from its own funds and the grant provided by World Bank.

2.4.2. Bank of Baroda

Bank of Baroda is the only nationalised bank working actively with MACP for funding the FPCs for their financial requirements. For getting finance from Bank of Baroda, a company needs to be at least 6 months old. It shall provide the FPC with collateral free loan based on credit guarantee from SFAC under Equity Grant and Credit Guarantee Fund but for that the FPC needs to fulfil all the eligibility criteria as specified in the EGCGF scheme document. The bank normally provides working capital loan with ROI at the rate of 9.5% or above depending on the creditability of the concerned FPC. It finances companies which are into trading or processing of pulses, cereals, fruits, vegetables, cash crops, etc. It provides term loan, Cash Credit, warehouse receipt finance, etc. The time period of the loan depends on the product FPC requires. For e.g., the term loan is sanctioned from 1 year upto 7 years, and CC is provided for as long as the FPC requires with yearly renewal. The bank also requires a comfort letter from supporting organisation (s).

2.4.3. Ananya Finance for Inclusive Growth Pvt Ltd.

The Ananya Finance for Inclusive Growth Pvt Ltd is an NBFC funding the FPCs for their working capital and term loan needs. Ananya Finance provides financial assistance to only those companies which are at least 1-year-old. It normally provides loans with ROI at the rate of 14% or above. It finances companies which are into trading or manufacturing of pulses, cereals, fruits, vegetables, cash crops, etc. It usually provides loan for a period of less than 1 year. The entire loan has to be repaid at the end of the loan term. It also requires a comfort letter from supporting organisation.

2.4.4. Samunnati Financial Intermediation and Services Pvt. Ltd.

Samunnati Financial Intermediation and Services Pvt. Ltd., commonly known as Samunnati Finance, an NBFC funding the FPCs for their working capital and term loan needs. It normally provides loans with ROI at the rate of 20% or above. It finances companies which are into trading or processing of pulses, cereals, fruits and vegetables, cash crops, etc. It usually provides loan for a period of less than 1 year. The entire loan has to be repaid at the end of the loan term. It also requires a comfort letter from supporting organisations.

Statement 1:

Table 36 Balance Sheet for Raosaheb Patil Agro Producer Company Ltd. as on 31st March, 2016

Particulars	Note No.	2016
Equity and Liabilities		
Shareholder Fund		
Share Capital	3.1	500,000
Reserves and Surplus	3.2	-54,643
Non- Current Liabilities		
Short-Term Provisions	3.6	5,000
		450357
Assets		
Non-Current Assets		
Cash and cash equivalent	3.9	40,000
Current Assets		
Cash and Bank Balance	3.1	410,357
		450357
Summary of significant Accounting Policies		

The accompanying notes are an integral part of the financial statements

Statement 2:

Table 37 Profit and Loss Statement for Raosaheb Patil Agro Producer Company Ltd. for 2015-16 ended on 31st March, 2016

Particulars	Note No.	2016
Revenue		
Expenses		
Cost of Material consumed	4.3	143
General and Administrative Expenses	4.5	54,500
Total		54,643
Earnings Before Depreciation, Interest Tax and Amortization		-54,643
Profit Before prior period items, exceptional items and extraordinary items		-54,643
Prior period items and exceptional items		
Profit Before extraordinary items		-54,643
Extraordinary Items		
Profit Before Tax		-54,643
Profit or Loss for the period from continuing operation		-54,643
Profit or Loss for the year		-54,643
No. of Equity shares(Face Value Rs 10/- share)		10,000
Basic		-5.46

Statement 3:

Table 38 Balance Sheet for Raosaheb Patil Agro Producer Company Ltd. as on 31st March, 2017

Sr. No.	Particulars	Note No.	2017	2016
I	Equity and Liabilities			
1	Shareholder Fund			
a	Share Capital	1	500,000	500,000
b	Reserves and Surplus	2	1,182,096	-54,643
c	Money Received against Share Warrants			
2	Share Applications money pending allotment			
3	Non- Current Liabilities			
4	Current Liabilities			
a	Trade Payables	5	1,823,572	
b	Other Current Liabilities	6	219,074	
C	Short-Term Provisions	7	60,200	5,000
	Total		3,784,942	450,357
II	Assets			
1	Non-Current Assets			
	Fixed Assets			
	Tangible Assets	8	1,747,100	
a	Non-Current Investments	9	11,000	

b	Other Non- Current Assets	11		
2	Current Assets			
A	Trade Receivables	14	1,126,071	40,000
B	Cash and cash equivalent	15	860,771	410,357
C	Short Term loans and advances	16	40,000	
D	Other Current Assets			
	Total		3,784,942	450,357

Statement 4:

Table 39 Profit and Loss Statement for Raosaheb Patil Agro Producer Company Ltd. for the year 2016-17 ended on 31st March 2017

Sr. No.	Particulars	Note No.	2017	2016
A	Revenue			
	Other Income	18	354,884	
	Total Revenue		354,884	
B	Expenses			
	Employee Benefit Expenses	21	60,000	
	Financial Costs	22	7,094	143
	Other Expense	24	103,527	54,500
	Total		216,393	54,643
	Profit before exceptional and			
	Extraordinary Items And Tax	138,491	54,643	
	Exceptional Items			
	Profit before extraordinary items and tax		138,491	54,643
	Extraordinary Items			
	Profit before tax		138,491	54,643
A	Current Tax			
B	Deferred Tax Liability or Assets			
	Profit(Loss) from the period from continuing operations		138,491	54,643

Statement 5:

Table 40 Balance Sheet for Agasti Farmers Producer Company Ltd. as at 31st March 2016

Sr. No.	Particulars	Note No.	2016	2015
I	Equity and Liabilities			
1	Shareholder Fund			
a	Share Capital	2.1	3,50,000	1,00,000
b	Reserves and Surplus	2.2	(1,44,512)	-15,706
			2,05,488	84,294
2	Share Applications money pending allotment	2.4		
3	Non- Current Liabilities			
a	Long- Term Borrowing	2.5	1,14,300	
d	Long Term Provisions	2.8		
4	Current Liabilities			

d	Short-Term Provisions	3.2	83,040	7,240
			1,61,969	7,240
	Total		4,81,757	91,534
II	Assets			
1	Non-Current Assets			
	Fixed Assets			
A	Tangible Assets	3.3	3,86,957	
B	Other Non- Current Assets	4	25,398	33,864
2	Current Assets			
A	Cash and Bank Balance	4.4	69,402	57,670
	Total		4,81,757	91,,534

Statement 6:

Table 41 Profit and Loss Statement for Agasti Farmers Producer Company Ltd. for the year 2015-16 ended on 31st March 2016

Particulars	Note No.	2016	2015
Revenue			
Other Income	4.8	2,409	
Total Revenue		2,409	
Expenses			
Depreciation and Amortization	5.4	16,561	
Other Expense	5.5	114,654	15,706
Total		1,31,215	15,706
Profit or Loss before exceptional and Extraordinary Items And Tax		-128,806	-15,706
Exceptional Items	5.6		
Profit or Loss extraordinary before tax		-128,806	-15,706
Extraordinary Items	5.7		
Profit before prior period items and tax		-128,806	-15,706
Prior Period Items	5.8		
Profit or Loss before tax		-128,806	-15,706
Current Tax	5.9		
Profit or Loss after tax for the year		-128,806	-15,706
Basic		-6.33	-1.57

Statement 7

Table 42 Balance Sheet for Agasti Farmers Producer Company Ltd. for the year 2016-2017 as on 31st March, 2017

Sr. No.	Particulars	Note No.	2017	2016
I	Equity and Liabilities			
1	Shareholder Fund			
a	Share Capital	2.1	350,000	350,000
b	Reserves and Surplus	2.2	(1,54,449)	-144,512
C	Money Received against Share Warrants			
			195,551	205,488
2	Share Applications money pending Allotment			
3	Non- Current Liabilities			
A	Long- Term Borrowing	2.3	214,795	114,300
B	Other Long- Term Liabilities	2.4	114,500	
4	Current Liabilities			
A	Trade Payables	2.5	465,811	20,000
B	Other Current Liabilities	2.6	7,819	58,929
C	Short-Term Provisions	2.7	224,800	83,040
			698,430	161,969
	Total		1,223,276	481,757
II	Assets			
1	Non-Current Assets			
	Fixed Assets			
	Tangible Assets	2.8	656,643	386,957
A	Non-Current Investments	2.9	1,000	
B	Other Non- Current Assets	3	16,932	
2	Current Assets			
A	Inventories	3.1	341,893	
B	Trade Receivables	3.2	90,600	
C	Cash and Bank Balance	3.3	116,208	69,402
	Total		1,223,276	481,757

Statement 8:

Table 43 Profit and Loss Statement for Agasti Farmers Producer Company Ltd. as on 31st March 2017

Particulars	Note No.	2017	2016
Revenue			
Revenue from Operation	3.4	1,739,154	
Other Income	3.5	3,038	2,409
Total Revenue		1,742,192	2,409
Expenses			
Purchase of stock-in-trade	3.6	1,684,297	
Change in inventories of finished goods			
Stock-in-trade and Stock-in-progress	3.7	-341,893	
Employee Benefit Expenses	3.8	107,000	
Depreciation and Amortization	3.9	37,563	16,561
Other Expense	4	265,162	114,654
Total		1,752,129	131,215
Profit or Loss before exceptional and Extraordinary Items And Tax			
Extraordinary Items		-9,937	-128,806
Profit or Loss extraordinary before tax		-9,937	-128,806
Profit before prior period items and tax		-9,937	-128,806
Profit or Loss before tax		-9,937	-128,806
Profit or Loss after tax for the year		-9,937	-128,806
Basic	4.1	-0.28	-3.68





CHAPTER 3

REGULATORY COMPLIANCES UDYOG ADHAR, DML, FSSAI, PRIVATE MARKETS

Highlights

This Chapter highlights various regulatory compliances required to be adhered to by FPCs and the steps involved in registering for the same.

FPCs who want to start any business, need to register themselves. This is known as Udyog Aadhaar. Udyog Aadhaar is required for running units. There is no need to apply for upcoming units.

Anyone looking forward to purchase agricultural produce directly from farmers in one or more than one market area is eligible for the Direct Marketing License. One needs to apply to the Directorate of Marketing through online process for acquiring the above mentioned license.

FSSAI is another license required to be secured by FPCs.

The various licensing and clearance requirements may be viewed in terms of PCB, building plan sanction, etc.

3.1. Regulatory Compliances: Udyog Aadhaar

3.1.1. Registration Site: (udyogaadhaar.gov.in)

It is essential to note that Entrepreneur Memorandum- Part (i) has been abolished. There is need to file through Udyog Aadhaar today. Further, Udyog Aadhaar is for already running units. There is no need to apply for up coming units. A feature has been added for search facility of the National Industries Classification Code. Also, a One Time Password on Mobile (linked with Aadhaar) at the time of registration has been implemented.

3.1.2. Required Documents for Udyog Aadhaar EM Part-(i) Registration

The required documents may be viewed in terms of:

- 1) Aadhaar Card Copy (For Aadhaar Card number and Name)
- 2) Bank Pass Book Copy (For Bank)
- 3) PAN Card

3.1.3. The steps involved in filling up the home page

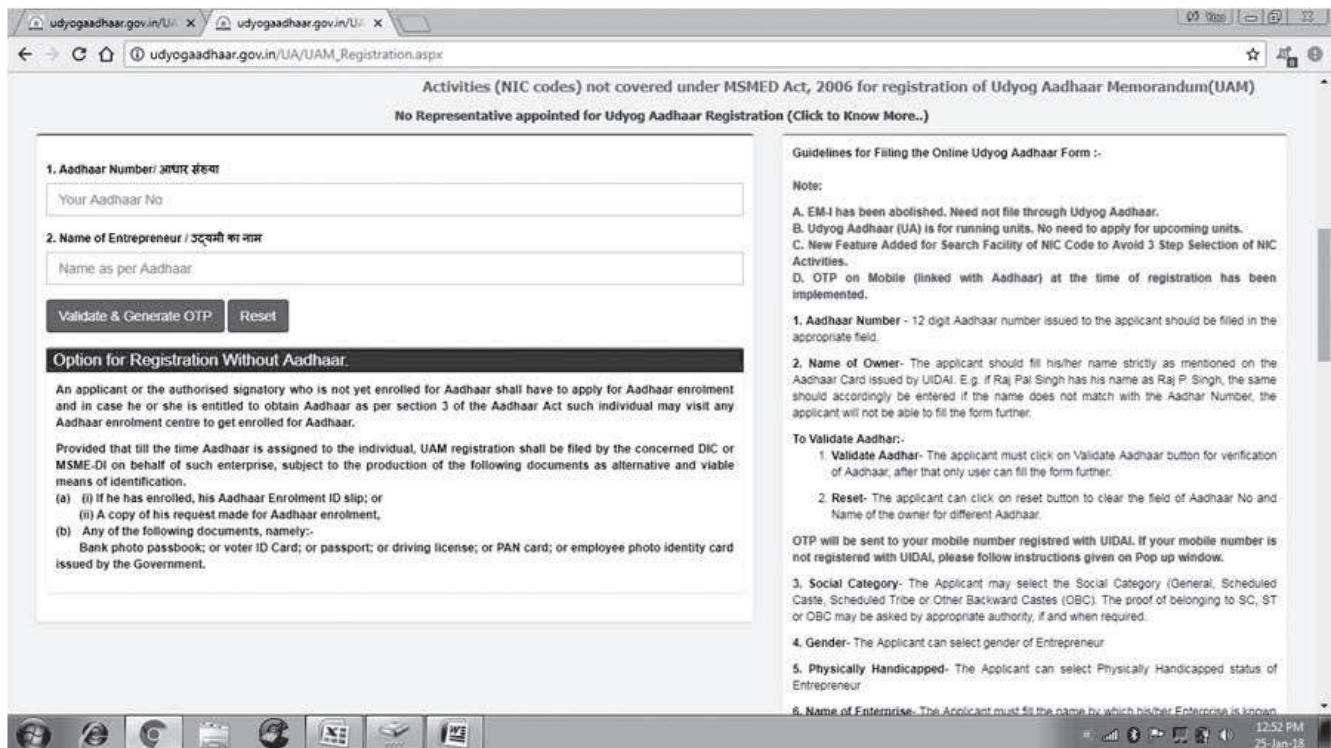


Figure 3 View of home page of Udyog Aadhaar website

The steps involved may be viewed as:

- i. Aadhaar Number - 12 digit Aadhaar number issued to the applicant should be filled in the appropriate field.
- ii. Name of Owner- The applicant should fill his or her name strictly as mentioned on the Aadhaar Card issued by UIDAI. E.g. if Raj Pal Singh has his name as Raj P. Singh, the same should accordingly be entered. If the name does not match with the Aadhaar Number, the applicant will not be able to fill the form further.
- iii. To Validate Aadhaar-
 - Validate Aadhaar - The applicant must click on “Validate Aadhaar” button for verification of Aadhaar, after that only user can fill the form further.
 - Reset- The applicant can click on reset button to clear the field of Aadhaar No and Name of the owner for different Aadhaar.

OTP will be sent to mobile number registered with UIDAI. If your mobile number is not registered with UIDAI, one may follow instructions given on Pop up window.

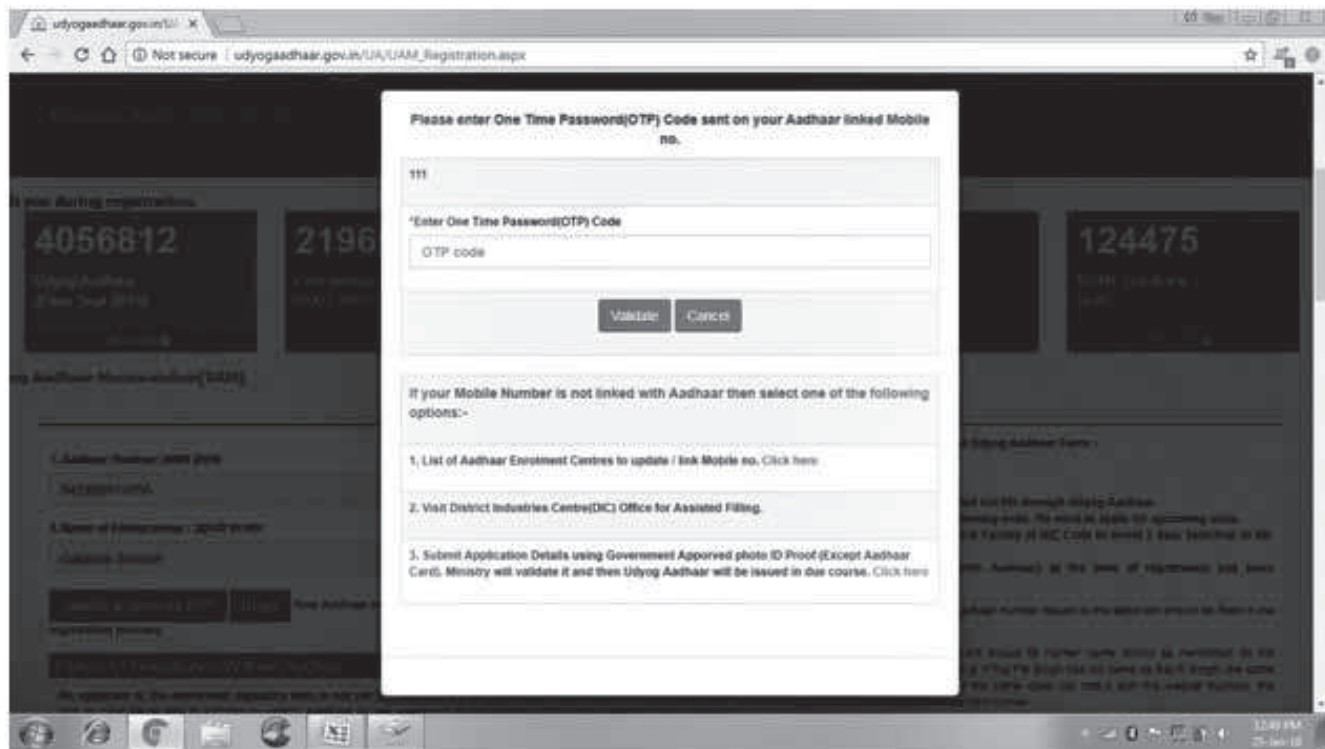


Figure:4 View of Udyog Aadhaar website to validate Aadhaar member by OTP

After entering the OTP, one will be ready to fill the Applicant details for registration in the sequence described below.

- iv. **Social Category-** The Applicant may select the Social Category (General, Scheduled Caste, Scheduled Tribe or Other Backward Castes). The proof of being longed to SC, ST or OBC may be asked by appropriate authority, if and when required.
- v. **Gender-** The Applicant can select gender of promoter.
- vi. **Physically Handicapped-** The Applicant can select Physically Handicapped status (if relevant) of the promoter.
- vii. **Name of Enterprise -** The Applicant must fill the name by which his or her enterprise is known to the customers or public and is a legal entity to conduct business. One applicant can have more than one enterprise into business and each one can be registered for a separate Udyog Aadhaar and with the same Aadhaar Number as Enterprise 1 and Enterprise 2, etc. Combination of same Aadhaar Number and Enterprise Name can be added second time. Only additional details can be added or deleted at the time of editing.
- viii. **Type of Organization -** The Applicant may select from the given list, the appropriate type of the organization for his or her enterprise. The Applicant must ensure that he or she is authorized by the legal entity (i.e. Enterprise being registered for Udyog Aadhaar) to fill this online form. Only one Udyog Aadhaar number shall be issued for each enterprise or FPC.
- ix. **PAN Number -** The Applicant has to enter a PAN Number in case of Co-operative, Private Limited, Public Limited and Limited Liability Partnership. It will be optional in remaining type of organization.
- x. **Location of Plant -** The Applicant may add multiple plant locations in one registration by clicking 'Add Plant button'.
- xi. **Official Address -** The Applicant needs to fill in the appropriate field with the complete postal address of the enterprise including State, District, Pin code, Mobile Number and Email.

- xii. Date of Commencement-** The date in the past on which the business entity commenced its operations may be filled in the appropriate field.
- xiii. Previous Registration Details (if any)-** If the Applicant's enterprise, for which the Udyog Aadhaar is being applied, is already issued a valid EM-I or II by the concerned GM (DIC) as per the MSME Act 2006 or the SSI registration prevailing prior to the said Act, such number may be mentioned in the appropriate place.
- xiv. Bank Details-** The Applicant must provide his or her bank account number used for running the Enterprise in the appropriate place. The Applicant must also provide the IFS Code of the bank's branch where his or her mentioned account exists. The IFS code is printed on the Cheque Books issued by the bank. Alternatively, if the Applicant knows the name of the Bank and the branch where his or her account is there, the IFSC code can be found from website of the respective Bank.
- xv. Major Activity-** The major activity i.e. either "Manufacturing" or "Service" may be chosen by the enterprise for Udyog Aadhaar. If the enterprise involves in both type of activities and if major work involves in Manufacturing and small portion of activity involves in Service sector, then one can select major activity type as "Manufacturing" and if major work involves in Services and small portion of activity involves in Manufacturing then one can select major activity type as "Services".
- xvi. National Industry Classification Code -** The Applicant may choose multiple National Industrial Classification-2008 Codes to include all their activities, which means the user can select multiple NIC code of Manufacturing and Service sector by clicking "Add More" button. If one wants to add Manufacturing, then can select "Manufacturing" radio button and keep on adding by clicking "Add More" button otherwise if one wants to add Service then select "Services" radio button and keep on adding by clicking "Add More" button. The NIC codes are prepared by the Central Statistical Organization under the Ministry of Statistics and Program implementation, Government of India.
- The Applicant may use National Industrial Classification-2008 Codes searching facility to avoid 3 steps selection process. Example: User has to write matching key word (2 or more characters) in Search text box in Column No 11. Then all related NIC CODEs will be listed (including Nic 2 Digit, Nic 4 Digit and Nic 5 Digit) with code and description. If User selects NIC 5 Digit code, then automatically all the related fields (like NIC 2 Digit, 4 Digit, 5 Digit and Enterprise Type) at column 11 will be automatically filled. Same way, if user selects NIC 4 digit, then related field of 2 digit NIC Code will be filled, but user has to select NIC 5 digit from drop down (In this case, 2 steps are required).
- xvii. Person employed -** The total number of people who are directly being paid salary or wages by the enterprise may be mentioned in the appropriate field.
- xviii. Investment in Plant and Machinery or Equipment-** While computing the total investment, the original investment (purchase value of items) is to be taken into account excluding the cost of pollution control, research and development, industrial safety devices, and such other items as may be specified, by notification of RBI. If an enterprise started with a set of plant and machinery purchased in 2008, worth Rs. 70 Lakh, has procured additional plant and machinery in the year 2013, worth Rs. 65 Lakh, then the total investment in Plant and Machinery may be treated as Rs.135 Lakh.
- xix. DIC -** The Applicant, based on the location of the enterprise, has to fill in location of DIC. This column will be active and show option only when there are more than one DIC in the district. In fact, if there is only one DIC in the district, system will automatically register you in the same DIC.

- xx. Submit- The Applicant must click on Submit button to generate OTP which will be sent to email id mentioned for registration. The Applicant has to enter OTP received on mobile (linked with Aadhaar) second time. The Applicant must enter Captcha before clicking Final Submit button. One should take the printout of Acknowledgement and Udyog Aadhaar Memorandum for record.

General Legalities

Factories Act, 1948: This is applicable to enterprises where the number of employees is ten or more and where power is used; or twenty or more and power is not used. The enterprises covered under the Act are required to keep certain records: muster roll; workers register; overtime register; advance register; register for fine; register for deductions; register of wages; register of accidents and dangerous occurrences; bond inspection book; register of cleaning and white washing; record of examination of parts of machinery.

Employees Provident Fund and Miscellaneous Provisions Act, 1952: The Act applies to every factory or establishment employing 20 or more employees. It, however, exempts a factory or establishment for an initial period of 3 years from commencement of business if the number of employees is more than 50 and for an initial period of 5 years if the number of employees is less than 50. The minimum contribution payable by the employer is 12% of the basic salary contribution and Dearness Allowance. The employee also makes an equal contribution. The Act, however, does not specify a maximum contribution.

Employees' State Insurance Act: It provides benefits to employees in case of sickness, maternity and employment injury and for certain other matters in relation thereto. The Act also provides for payment of contributions by employers and employees at the rates specified in the First Schedule of the Act. The existing rates of employee's contribution vary according to wages and the employer's contribution is exactly double the employee's contribution. It shall apply to factories employing 20 or more people.

Payment of Wages Act, 1936: This Act is applicable to factories and establishments, which come under the Factories Act.

Minimum Wages Act, 1948: The employer has to pay minimum wages to employees in certain scheduled industries. At present, the minimum wages act is applicable in 44 scheduled industries.

The Indian Partnership Act, 1932: The Indian Partnership Act, which was amended in 1932, provides for rules relating to foundation of legal partnership. It states the rights and duties of the partners amongst themselves and outside and lays down rules regarding the dissolution of partnership.

The Income Tax Act, 1911: The Act governs the levy of income tax in India. It defines various terms and expressions and states the liability of a person to pay income tax. The rates and pattern of taxation, however, are changed from time to time.

Pollution Control Act: The State Air and Water Pollution Control Board is the body responsible for implementing this Act. The act is applicable to all kinds of industry.

Further, units need to secure GST registration also:

Specific Legalities (Food Processing):

In addition to the general legal requirements, there are a few legal requirements that are specific to Food Processing Industries. A food processing enterprise has to comply with several compulsory legal requirements. Implementation of these norms with regard to Small and Medium Enterprises is relatively stringent while cottage and household level units sometimes tend to compromise on such stipulations. These laws include:

- **Prevention of Food Adulteration Act (1954):** It is the basic statute to protect consumers against supply of adulterated food. The Central Committee for Food Standards under the Directorate General and Health Services Ministry of Health and Family Welfare has specified the standards.
- **Milk and Milk Products Order (MMPO):** It regulates milk and milk products production in the country. The order requires no permission for units handling less than 10,000 litres of liquid milk per day or milk solids up to 500 TPA.
- **Fruit Products Order (1955):**It regulates manufacture and distribution of all fruit and vegetable products, sweetened aerated waters, vinegar and synthetic syrups. The license is issued by Regional Director of MoFPI located at Mumbai, Delhi, Kolkata, Chennai and Guwahati based on the satisfaction of the concerned officer with regard to quality of production, sanitation and hygiene, machinery and equipment and work area standards.
- **Standard of Weights and Measures (Packaged Commodities) Rules (1977):**It lays down certain obligations for all commodities in packed form with respect to their quality declaration. The Directorate of Weights and Measures under the Ministry of Food and Civil Supplies operates these rules.
- **Export (Quality Control and Inspection) Act (1963):** It is operated by the Export Inspection Council and under this act many exportable commodities have been notified for compulsory pre-shipment inspection unless specifically requested by the importer not to do so.
- **Voluntary Standards:** They are regulated by organizations involved with voluntary standardization and certificates systems concerning quality parameters in food. They are the Bureau of Indian Standards (BIS) and Directorate of Marketing and Inspection (DMI). The food processing industries sector as a whole involves other legislations.
- **Oils, Deoiled Meal and Edible Flour Control Order (1967)and Vegetables Products Control Order(1976):** It controls the production and distribution of solvent extracted oils, de-oiled meals, edible oil seed flours and hydrogenated vegetable oils (Vanaspati).
- **Meat Food Products Control Order (1973):** It regulates manufacture, quality, and sale of all meat products and is operated by the Directorate of Marketing and Inspection.

3.2. Regulatory Compliances: DML

3.2.1. Introduction

According to the Maharashtra APMC Act, 1963, section 5 (D) and rule 4 B (1967 amendment), Directorate of Marketing has been authorised to give Direct Marketing License. To opt for the license, one needs to apply to the Directorate of Marketing through online process (website: www.dom.msamb.com).

The means for obtaining DML is given below:

3.2.2. Guidelines for Securing DML

1. **Eligibility for Direct Marketing License:** Any person desiring to purchase agricultural produce directly from farmers in one or more than one market area is eligible for securing Direct Marketing License.
2. **Documents required in the application for Direct Marketing License:**
 - a) Form “A” in prescribed format
 - b) Form “B” (Collection Centre Information) in prescribed format

- c) Bank Guarantee (For Maharashtra or more than one division Rs. 5 Lakh, For One Division Konkan, Pune, Nasik Rs.5 Lakh. Nagpur Rs.3 Lakh. Amravati and Nagpur Rs.2 Lakh). (No Bank Guarantee and Fee exemption;except as is applicable for Farmers Producer Companies only)
- d) Solvency Certificate- FPCs don't require any solvency certificate. But it is advised to have solvency certificate of Rs 10,000 from the bank (Though it is not required)
- e) Declaration On Stamp paper Rs. 200 with notarization and with two witnesses
- f) Declaration on Stamp paper of Rs. 200 about not being a Director or Partner in Private Market or Farmer-Consumer Market with notarization and with two witnesses
- g) Operational and Working Guidelines
- h) For company constitution, Registration Certificate, List of Directors with address, Pan Card Xerox, Resolution regarding Signing Authority
- i) For Proprietor- Pan Card Xerox, Aadhaar card Xerox, M.S.E.B. Bill, Election Card, Character Certificate
- j) Income Tax Returns of last 3 years
- k) Project Report (with photos)
- l) List of farmers in contact
- m) License Fee Challan-
 - i. For one Division area of operation Rs.500 (Per division Rs. 500).
 - ii. For all State or more than one division area of operation Rs. 1000.

3. How to apply for Direct Marketing License:

Any person who desires to apply for Direct Marketing License should submit all the prescribed documents to Director of Marketing office with the prescribed fee.

4. Where to apply:

Application should be submitted to Director of Marketing, Maharashtra State, Pune-1.

(Website : www.dom.msamb.com).

Address: -

Directorate of Marketing, (Maharashtra State)

3rd Floor, New Central Building, 5, B. J. Road, Near Sassoon Hospital, Pune - 411001. Tel.: 020 26126628, 26126785.

(For more information: www.msamb.com).

3.2.3. Operational and working guidelines- Direct Marketing

Guidelines governing Direct Marketing of Agricultural Products at the Company Collection centres, platforms and sourcing centres (as furnished in the Form B and Form C along with the applications) may be amended from time to time.

1. Every collection centre or platform sourcing centre at which direct marketing is to be undertaken (herein after called "Collection Centres") will have special counters for receiving the produce brought in by the farmers or agriculturists. The company may also utilize mobile van facilities for the purpose of direct marketing.

2. The collection centres opened are for the purposes of sale and purchase of agricultural produce or such other purpose directly or indirectly connected with the sale and purchase of agricultural produce only.
3. The timings for working of the collection centres will be from 5.00 AM to 10.00 PM on all days with such variations as may be notified by the company from time to time, subject to necessary clearances from the concerned authorities.
4. Collection centres will maintain and display daily a list of prices of the different varieties and grades of declared agricultural produce.
5. Every price quotation made in Collection Centres in respect of any declared agricultural produce will always be exclusive of the container there of.
6. The seller or Farmer, who intend to sell his agricultural produce to the company, will bring the same to the Collection Centres of the company.
7. The company's representatives will evaluate the quality of the produce brought and confirm the purchase price to the seller. in line with the display of prices.
8. On confirmation by the seller, weightment or measurement of the agricultural produce is done using weights or measuring instruments having approval of weights and measures authorities, in the presence of the seller.
9. Thereafter a bill is prepared in the form prescribed as under, furnishing details (including price) of all the agricultural produce purchased from the seller. One copy of the bill along with weightment slip is retained by the company and one copy of the same is given to the concerned seller or farmer.

Company Name				
Name of the Collection Centre				
Name of the farmer			Date:	
S.No.	Description	Quantity or Nos.	Rate or Price	Total

Figure 5 Sample bill for district marketing purchase (s)

10. Immediately after any agricultural produce is weighted or measured in the collection centres, the company will settle the account and pay the seller as the case may be for the purchase of the produce so weighted.
11. The payment of the goods will be made to the agriculturist on the same day of weighing or measuring of the goods and after deducting the legitimate charges only, provided that under no circumstances payment for produce sold will be with held
12. Once the agricultural produce is purchased at collection centers, the same will be send in the company hired vehicles to the warehouse, specially arranged, for cleaning, grading, sorting and storage of these agricultural produce.
13. After cleaning, grading and sorting, the same will be dispatched to the retail outlets of the company in company hired vehicles.
14. The agricultural produce, so dispatched, will be finally sold to the retail customers from the company retail outlets.
15. The Collection Centers will keep regular and proper accounts of every purchase and sale transaction of agricultural produce either manually in a Register or on computer in a computerized environment as specified by the Director.

16. The Collection Centers will maintain a register or records showing the fees and all other charges collected or paid.
17. The Collection Centers will take all steps to ensure that no one may adulterated any declared agricultural produce or cause such produce to be adulterated and it is the duty of the Collection Centers to take adequate steps including power to take sample of any such produce to see that no declared, agricultural produce dealt threat is adulterated as defined under The Prevention of Food Adulteration Act 1954.
18. In relation to trading of the agricultural produce sourced under the direct marketing the company standard procedures will apply.
19. Company will have furnished all the necessary information to the Director or the officers duly authorized by him as he may require.
20. Company will produce all the required documents and records to the director and the Director has an authority to enter in the Collection Centers for inspection or seizure of the record and to take action as per the provision soft heact, rules and operational working guidelines.

3.3. Regulatory Compliances: Food Safety and Standards activity of India

The Food Safety and Standards Act, 2006 seeks to consolidate the laws relating to food and to establish the Food Safety and Standards Authority of India for laying down science based standards for articles of food and to regulate their manufacture, storage distribution, sale and import, to ensure availability of safe and whole some food for human consumption and for matters connected there with or incidental there to.

3.3.1. Salient Features of the Act

- Enforcement of legislation by the State Governments
- UTs through the State Commissioner for Food Safety, his officers and Panchayati Raj or Municipal bodies
- Emphasis on gradual shift from regulatory regime to self
- Compliance through food safety management system
- Consistency between domestic and international food policy measures without reducing safeguards to public health and consumer protection
- Adequate information dissemination on food to enable consumer to make informed choices.
- Compounding and Adjudication of cases – to reduce Court’s workload and expedite the disposal of cases
- Graded penalty depending upon the gravity of offences

3.3.2. Scope of The Act

- The Act covers activities throughout the food distribution chain, from primary production through distribution to retail and catering.
- The Act gives the Government powers to make regulations on matters of food safety.
- The Food Safety and Standards Authority of India is the principal Government Authority responsible for preparing specific regulations under the Act.

3.3.3. Process to Apply for FSSAI License

- i. Online Process: <https://foodlicensing.fssai.gov.in/index.aspx>.
- ii. Read the instructions given on https://foodlicensing.fssai.gov.in/how_to_apply.html
- iii. Registration online through: https://foodlicensing.fssai.gov.in/registration_fees_structure.html
- iv. Documents for first registration: https://foodlicensing.fssai.gov.in/document_registration_certificate.html
- v. Fees Structure: https://foodlicensing.fssai.gov.in/central_fees_structure.html
- vi. List of documents for new registration/renewal etc.: https://foodlicensing.fssai.gov.in/central_document_list.html
- vii. Fees for State level License: https://foodlicensing.fssai.gov.in/fees_structure.html
- viii. List of documents for new registration/renewal etc: https://foodlicensing.fssai.gov.in/state_document_list.html
- ix. For more detailed information and how to register online please visit: https://foodlicensing.fssai.gov.in/PDF/FBO_User_Manual_Ver3.0.pdf



Help Desk

 **1800112100**

 **9:30 am to 1:00 pm**
1:30 pm to 5:30 pm

Email - [licensing @fssai.gov.in](mailto:licensing@fssai.gov.in)





CHAPTER 4

WORKING CAPITAL FOR FPCs - CASE STUDIES

Highlights

This chapter highlights, with case studies, various purposes for which working capital loan is absorbed by an FPC. It also presents typical requirement by lending institutions.

Swaroop Shetkari Producer Company Limited was formed with support of Agriculture Technology Management Agency (ATMA)-Aurangabad. ABPF Grant Thornton (GT) has supported the FPC in developing the business plan and in strengthening its backward and forward linkages. The FPC has now secured Rs.27 Lakh for procurement, drying and trading of maize and other commodities on the NCDEX platform as well as direct marketing. The company primarily aggregates maize during Kharif harvest (around December) and Rabi harvest (around March) from its members. Once raw material is procured from members, it is dried to obtain the desired moisture content. The primary buyers of such value added maize include feed manufacturing units, poultry farms and starch units. SSPCL has successfully traded some quantity of maize on NCDEX platform in year 2016-17. In order to enable the FPC meet the need of such credit facility, NABKISAN Finance Ltd. (NFL) sanctioned a credit limit of Rs. 27 Lakh for 6 months (at the rate of 11% interest p.a.). The timely disbursement of loan has effectively helped the FPC to execute the turnover of approximately Rs.1.35 Crore in the first quarter of Calendar Year 2018. The estimated net profit on the transaction is about Rs. 3.62 Lakh.

Solapur Agro Producer Company Limited (SAPCL) is located in Solapur district. The FPC has now secured Rs.27 Lakh for procurement, drying and trading in maize and other commodities on the NCDEX platform and for direct marketing. In order to enable the FPC, meet the need of such credit facility, ABPF prepared the proposal and submitted to NABKISAN Finance Limited (NFL) with all relevant documentation. NFL, sanctioned a credit limit of Rs. 27 Lakh for 6 months (at the rate of 11% interest p.a.). The timely disbursement of the loan has effectively helped the FPC to procure about 40 MT of Maize immediately in 2018. The FPC has already received confirmation for sale at a tentative selling price of Rs. 15000 per MT.

4.1. Introduction:

Working Capital is required by FPC for growth and expansion. Such working capital may be deployed for a range of purposes including purchase from members and sale through the NCDEX platform to benefit from price arbitrage.

4.2. Swaroop Shetkari Producer Company Ltd

Swaroop Shetkari Producer Company Limited is a FPC which developed its Farmers Common Service Centre with assistance under the Maharashtra Agricultural Competitiveness Project. The company was formed with support from the Agriculture Technology Management Agency (ATMA)-Aurangabad. Grant Thornton (GT), which operates the Agri Business Promotion Facility of the MACP project, has supported the FPC in developing the business plan and in strengthening its backward and forward linkages.

The company is located at Khultabad Taluka of Aurangabad district. The company operates an FCSC involved in cleaning and grading of grains and a mini dal mill. The FCSC established at a project cost of Rs. 18 Lakh has received grant in aid assistance under the MACP to the tune of Rs.13.50 Lakh. The FPC has now secured Rs.27 Lakh for procurement, drying and trading in maize and other commodities on the NCDEX platform and for direct marketing. To begin with, 13 Producer Groups (PGs) were mobilized in the cluster to form this FPC and today the company has developed a strong base of 257 farmer members. Primarily, seven villages – Sultanpur, Devlana Bu., Gadana, Kanadgaon, Bhadaji, Borwadi and Devlana Khuthat (with about 6488 acres of cultivable land) form the catchment area for the business of the FCSC. The major crops in this cluster are Maize, Ginger, Cotton, Gram, Wheat and some vegetables. The guidance from GT and appointment of an efficient manager has helped the company to diversify its portfolio and start trading in maize and other agri-commodities from 2016-17 onwards.

4.2.1. Need for Working Capital

The company primarily aggregates maize during Kharif harvest (around December) and Rabi harvest (around March) from its members. The freshly harvested produce has high moisture content (around 20% or more), whereas market players require or prefer moisture to be around 14%. Hence, once raw material is procured from members, it is dried to obtain the desired moisture content. The primary buyers of such value added maize include feed manufacturing units, poultry farms and starch units. Alternatively, some trading can be pursued by the company on the NCDEX platform to hedge or gain benefit of arbitrage opportunities. As a matter of fact, SSPCL has successfully traded some maize on NCDEX platform in the year 2016-17.

Yet, the management observed that to ensure greater turnover and returns through trading of maize it is essential that raw material is aggregated from members, value added (dried to reduce moisture) and sold in both physical market as well as NCDEX (whichever option is preferable). Hence, to handle such large scale procurement, its management and profitable trading, sufficient working capital is required.

4.2.2. Sanction and deployment of Working Capital

In order to enable the FPC meet the need of such credit facility, ABPF prepared the proposal and submitted to NAB-KISAN Finance Limited (NFL) with all relevant documentation. NFL, on the satisfaction of financial projections, required documentation and inspection of FPC's infrastructure, sanctioned a credit limit from 22nd November 2017 for a period of 6 months of Rs. 27 Lakh at the rate of 11% interest p.a., payable in monthly instalments.

The timely disbursement of the loan has effectively helped the FPC to procure about 1100 MT of Maize immediately in December 2017, through part payment to its members (on procurement). The value, in fact, of the material at the rate of Rs.11000 per MT was about Rs. 1.21 Crore. With some strong marketing linkages, the FPC has already sold the

procured maize at an average selling price of Rs. 13000 per MT. As of now, the FPC has already executed the turnover of approximately Rs. 1.35 Crore in the first quarter of Calendar Year 2018. The estimated net profit on the transaction (i.e. after deduction of all expenses, including interest expenses and normal loss (moisture loss) is about Rs. 3.62 Lakh. All instalments of the loan are timely paid by the FPC. Success of this model has not only given them experience but also encouraged them to further upscale their procurement and trading operations in next season. The company also looks forward to diversify to their product portfolio with other value added crops.

4.3. Solapur Agro Producer Company Limited

Solapur Agro Producer Company Limited (SAPCL) is a FPC which developed its FCSC with assistance under the Maharashtra Agricultural Competitiveness Project (MACP). The company was formed with support from the Agriculture Technology Management Agency (ATMA)-Solapur. Grant Thornton (GT), which operates the Agri Business Promotion Facility of the MACP project, has supported the FPC in developing the business plan and in strengthening its backward and forward linkages.

The company is located in the south Solapur block of Solapur district. The company operates an FCSC involved in cleaning and grading of grains and a mini dal mill. The FCSC established at a project cost of Rs.18 Lakh has received a grant in aid assistance under the MACP to the tune of Rs.13.50 Lakh. The FPC has now secured Rs.27 Lakh for procurement, drying and trading of maize and other commodities on the NCDEX platform and for direct marketing. To begin with, 19 Producer Groups (PGs) were mobilized in the cluster to form this FPC and today the company has developed a strong base of 379 farmer members. Primarily, five villages – Lavangi, Kughot, Nimbargi, Mandrup, Kalkal etc. (with about 3810 acres of cultivable land) form the catchment area for the business of the FCSC. The major crops in this cluster are Maize, Pigeon Pea, Sorghum, Wheat, Gram etc. crops. Further, onions, coriander, fenugreek, other vegetables, etc. are also grown in the cluster. The guidance from GT and appointment of an efficient manager has helped the company diversify its portfolio and start trading of maize and other agri commodities.

4.3.1. Need for Working Capital

The company primarily aggregates maize during Kharif harvest (around December or in January) and Rabi harvest (around March) from its members. The company's aggregation and procurement strategy is highly quality centric. Only high quality produce of moisture between 12-14% is procured directly from members. The primary buyers of such value added maize include feed manufacturing units, poultry farms and starch units. Alternatively, some trading is pursued by the company on the NCDEX platform to hedge or gain benefit of arbitrage opportunities.

Further, the company members together have surplus production of tur and chana. The aggregation strategy in the context of pulses is formed to ensure homogenous lot size of highly preferred varieties followed by value addition of same through cleaning and grading plant of the CFC while also marketing some portion as dal in company's own brand.

Procurement from members and their prompt payment is critical to make a sustainable business model. The company has a policy of upfront payment on receipt of material from members (and at higher than prevailing market rate) and thus the activity requires adequate funding. Further, value addition and marketing charges are some other major costs which need adequate liquid funds. Hence, to handle such larger scale procurement, its management and profitable trading, sufficient working capital is required.

4.3.2. Sanction and deployment of Working Capital

In order to enable the FPC meet the need of credit facility, ABPF prepared the proposal and submitted to NAB-KISAN Finance Limited with all relevant documentation. NFL, on satisfaction of financial projections, required documentation and inspection of FPC's infrastructure sanctioned a credit limit for 6 months of Rs. 27 Lakh (at the rate of 11% interest p.a., payable in monthly instalments) starting from 22nd November 2017.

The timely disbursement of the loan has effectively helped the FPC to procure about 40 MT of Maize immediately in January 2018, making full upfront payment to its members (on procurement of highest quality). The value, in fact, of the material (at the rate of Rs. 13500 per MT) was about Rs.5.4 Lakh. With some strong market linkages, the FPC has already received confirmation for sale (to be done in month of March) at a tentative selling price (with price change subject to market price movement) of Rs.15000 per MT. The company looks to further use the fund limit to replicate similar transactions. The company also expects more trading of maize on NCDEX platform in the month of February 2018, when the company will take call to transact based on price levels and movement.

Further, tur is also harvested the company plans to sell cleaned and graded produce directly to processors to gain about 4-5% higher than market rate. The same strategy will be used to transact in case of chana as well. All instalments of the loan are timely paid by the FPC and all dues of procurement are paid off too. The prospective success of this model has encouraged them to further upscale their procurement and trading operations in the next season. The company also looks at diversifying their product portfolio with other value added crops.





CHAPTER 5

NCDEX OPERATION FOR HEDGING AGAINST COMMODITY PRICE RISK

Highlights

This chapter shall help us to understand the operations of NCDEX for hedging against commodity price risk. Trade in commodities takes place in either spot markets or future markets. In spot markets, the commodity trade happens immediately, in exchange for cash or other commodities. NCDEX is a professionally managed on-line multi commodity exchange platform. NCDEX is a nation-level, technology driven de-materialized on-line commodity exchange platform with an independent Board of Directors and professional management - both not having any vested interest in commodity markets. NCDEX is regulated by Securities and Exchange Board of India commodity based on a standardized contract. One does not have to compulsorily make or accept deliveries of physical goods there. Trade in futures contracts happens electronically and the contracts can be settled in cash. A commodity futures contract is an agreement to buy or sell a specific quantity of a commodity at a fixed date in future at a predetermined price. This contract specifies further details, like the quality of the commodity and the delivery location. This contract allows buyers of commodities to avoid the risks associated with price fluctuations of products or raw materials.

Futures traders always trade in an organised exchange. Also the quality, quantity and delivery date of commodities serves to guarantee fulfilment of terms of the futures contract. Traders do not have to pay the entire value of a contract. They need to deposit a margin that is 5%-10% of contract value. The market is regulated by government agencies. The actual delivery can take place as per the schedule. On the NCDEX platform about 20 agriculture commodities are traded in futures. In Maharashtra, currently 4 commodities like maize, soybean, turmeric, bengal gram. are traded based on the availability of delivery centre.

Participating on the online exchange platform integrates remote users, overcoming barriers of distance. It increases access to market and service providers and facilitates new product and service development to meet new demand. It encourages movement from illegal or informal to legitimate or organised marketplace. Farmers become more informed about market and pricing. Cropping based on futures market increases returns rather than cropping based on spot market. The delivery-based transparent price discovery is helping improve market efficiency. Farmers are able to access distant markets through logistics. It reduces diversity in quality standards of the market. It increases purchaser confidence in local quality control or certification.

Reliable product grading, warehousing and market mechanisms help farmers access finance, thereby fostering increased productivity and higher rural incomes. It reduces costs of borrowing by reducing risks of both borrower and lender. This helps avoid serious losses when prices fall and enables farmers to receive a guaranteed price from a purchaser or intermediary. NABKISAN is supporting for financing FPCs for working capital requirement to complete the trade cycle.

In Maharashtra about 26 MACP promoted as well as 13 other FPCs are already into NCDEX futures trading while many more have carried out trial trade of between 10- 30 MT.

5.1. Introduction

National Commodity and Derivatives Exchange Limited is a professionally managed on-line multi-commodity exchange platform. The shareholders of NCDEX comprises of large national level institutions, public sector banks and companies. As a matter of fact, NCDEX is the only commodity exchange in the country promoted by national level institutions. This unique parentage enables it to offer a bouquet of benefits, which are currently in short supply in the commodity markets. The institutional promoters and shareholders of NCDEX are prominent players in their respective fields and bring with them institutional building experience, trust, nationwide reach, technology and risk management skills. NCDEX is a public limited company incorporated on April, 2003 under the Companies Act, 1956. NCDEX is a nation-level, technology driven de-mutualised on-line commodity exchange with an independent Board of Directors and professional management - both not having any vested interest in commodity markets. It is committed to provide a world-class commodity exchange platform for market participants to trade in a wide spectrum of commodity derivatives driven by best global practices, professionalism and transparency. NCDEX is regulated by Securities and Exchange Board of India. NCDEX is subjected to various laws of the land like the Securities Contracts (Regulation) Act, 1956, Companies Act, Stamp Act, Contract Act and various other legislations. NCDEX headquarters is located in Mumbai and offers facilities to its members from the centres located throughout India. As of March 2017, the Exchange offered trading in 25 commodity contracts, which includes 22 agricultural commodity contracts, 1 bullion commodity contracts and 2 metal commodity contracts.

5.2. About Futures Trade

The trade in commodities takes place in either spot markets or futures markets. In spot markets, the commodity trade happens immediately, in exchange for cash or other commodities. In futures markets, buyers and sellers trade a commodity based on a standardised contract. You do not have to compulsorily make or accept deliveries of physical goods here. Trade in futures contracts happens electronically and the contracts can be settled in cash.

An effective and efficient market for trading in commodity futures requires:

- Volatility in the prices of commodities
- Large numbers of buyers and sellers with diverse risk profiles (hedgers, speculators, and arbitrageurs)
- The physical commodities to be fungible (i.e. it should be possible to exchange them)

A commodity futures contract is an agreement to buy or sell a specific amount of a commodity at a fixed date in the future at a pre determined price. This contract specifies further details, like the quality of the commodity and the delivery location.

An investor could take a long position (where he buys a contract) or a short position (where he sells it). If the investor expects the price of a commodity to rise, he takes a long position. If he expects the price to fall, he opts for the short position. These contracts allow buyers of commodities to avoid the risks associated with price fluctuations of products or raw materials. For example, processor of pulses may buy a contract for protection against rising purchase prices. The sellers of commodities enter into contracts to lock in a price for their products. For example, a maize processing company may take a contract to guard against a fall in maize prices in future. Other players like funds, arbitrageurs, and retail investors—use futures contracts to gain from price movements.

The prices of commodities change on a daily basis. When the price of a commodity rises, the buyer of the futures contract makes money. The buyer gets the product at the lower, agreed-upon price. He can now sell it at the higher current market price. If the price falls, the seller of the futures contract makes money. The seller buys the commodity

at the current lower market price. He then sells it to the futures buyer at the higher, agreed-upon price.

In India, trade in commodity futures takes place on exchanges. Some well-known exchanges are the National Commodity and Derivatives Exchange (NCDEX) and the Multi Commodity Exchange of India (MCX).

When a Farmer Producer Company sells commodity futures, he does not have to pay the full price of the contract. The FPC simply has to deposit a percentage of the contract as margin with the broker. The commodities trading exchange determines the margin amount. It is typically 5–10% of the contract value.

Case illustration on Futures Trade

An FPC decides to sell 10 MT of Soybean futures for a certain price. FPC has to pay a certain amount as the margin. This margin amount is much lower than the actual price for 10 MT of Soybean. If the price of Soybean increases by Rs 200, then Rs 200 is debited from his account. If the price of soybean falls by Rs 500, then Rs 500 is credited to his account. Once the producer feels that the amount gained will not change further, he may choose to sell the futures.

5.3. Feature of Future Trade

There are several features of futures trade. They are:

1. **Organised:** Commodity futures contracts always trade on an organised exchange. NCDEX and MCX are examples of exchanges in India. NYMEX, LME and COMEX are some international exchanges.
2. **Standardised:** Commodity futures contracts are highly standardised. This means the quality, quantity, and delivery date of commodities is predetermined by the exchange on which they are traded.
3. **Eliminate counter-party risk:** Commodity futures exchanges use clearing houses to guarantee fulfilment of the terms of the futures contract. This eliminates the risk of default by the other party.
4. **Facilitate margin trading:** Commodity futures traders do not have to pay the entire value of a contract. They need to deposit a margin that is 5–10% of the contract value. This allows the investor to take larger positions while investing less capital.
5. **Fair practices:** Government agencies regulate futures markets closely. For example, there is the Forward Markets Commission (FMC) in India and the Commodity Futures Trading Commission (CFTC) in the United States. The regulation ensures fair practices in these markets.
6. **Physical delivery:** For physical delivery, the member needs to provide the exchange with prior delivery information. He also needs to complete all delivery-related formalities as specified by the exchange.

5.4. Commodities for Futures Trade in Maharashtra

On the NCDEX platform, about 20 agriculture commodities are traded in futures but in Maharashtra, currently 4 commodities are traded based on the availability of delivery centre. Following are the 4 commodities traded in futures on NCDEX in Maharashtra:

1. Maize
2. Soybean
3. Turmeric
4. Bengal Gram

5.5. Delivery Centres at Maharashtra

Following is the different delivery centres for commodities traded in futures:

Table 44 Delivery centres for commodities traded in futures

Sr. No.	Location	Commodities Traded
1	Jalgaon	Maize (Kharif)
2	Akola	Soybean
3	Sangli	Maize (Rabi), Maize (Kharif), Sugar, Turmeric
4	Nagpur	Soya Bean
5	Latur	Soya Bean
6	Basmat	Turmeric

5.6. Benefits to FPOs:

1. Empowering farmers to make better cropping and selling decisions

Farmers are more likely to find a market for crops when true level of demand is reflected in the price signals. More accurate price signals avoid shortages, gluts and other distortions or anomalies that lead to mismatch of demand-supply. Local price discovery provides better price guidance to farmers because it reflects the domestic industry rather than foreign fundamentals.

It builds new skills and enhances capacity for income diversification. It encourages farmers to organize collectively to access and benefit from new services. Participating on the online exchange platform integrates remote users, overcoming previous barriers of distance. It increases access to markets (prices, trading, other services); increases access to service providers (brokers, banks, warehouses); facilitates new product and service development to meet new needs. It encourages movement from illegal or informal to legitimate or organised marketplace.

2. Reducing information asymmetries

Farmers become more informed about market and pricing information. They get better price from intermediaries because of neutral and authoritative reference prices. This increases returns to farmers as well as enables them to hold until price level is good. At a micro level, market price information informs producers how the price is developing – and is expected to develop – during the season. This enables them to decide when the optimal time is to deliver goods to market. Cropping based on futures rather than spot price increases likely returns. This facilitates crop diversification where farmers can better appreciate price, and ultimately income differentials. It empowers farmers as they can take more marketing decisions into their own hands.

The delivery-based transparent price discovery is helping improve market efficiency, which in turn is leading to better price realization by farmers.

3. Upgrading storage, grading and technology infrastructure

Enhanced storage and logistics infrastructure reduces need for distress sales. Farmers are able to access more distant markets through logistics. It avoids wastage if goods can be effectively stored. It introduces better or more ‘scientific’ storage hardware and practices. Upgraded quality standards increase crop’s suitability to end user requirements. It improves quality of production by rewarding better quality and consistency of crop. It reduces diversity of quality standards in the market. It increases purchaser’s confidence in local quality control or certification. Already in commodities like guar seed, guar gum and castor, the market today talks of “NCDEX quality” for which premium is offered. It needs to add suite of products (options in particular) and facilitate credit and insurance products to the ground level

participants which is on the anvil.

The increasing interest and participation of FPCs in the delivery of maize, soybean and turmeric at the Exchange is changing the agricultural landscape of Maharashtra. Farmers have been able to recognize the value of meeting NCDEX standards and adopted grading and assaying practices. This is further helping in ensuring the supply of desired quality to the industry.

4. Expanding access to cheaper sources of finance

Reliable product grading, warehousing and market mechanisms help farmers access finance, thereby fostering increased productivity and higher rural incomes. It reduces costs of borrowing by reducing risks to borrower and lender. A reliable system of collateral management, and in particular of warehouse receipts, can make the provision of commodity finance to the sector a more viable proposition for prospective financiers. It provides working capital to cover important expenses and avoid distress sales. It ultimately enables greater capital for investment. Thus, financing becomes more organised and predictable. Investments lead to growth and performance upgrade in the agri-sector.

5. Price risk management

This helps avoid serious losses when prices fall and enables farmers to receive a guaranteed price from a purchaser or intermediary. Farmers are able to undertake more effective planning and investment because of greater income predictability. It reduces transaction costs for managing risk compared with other methods.

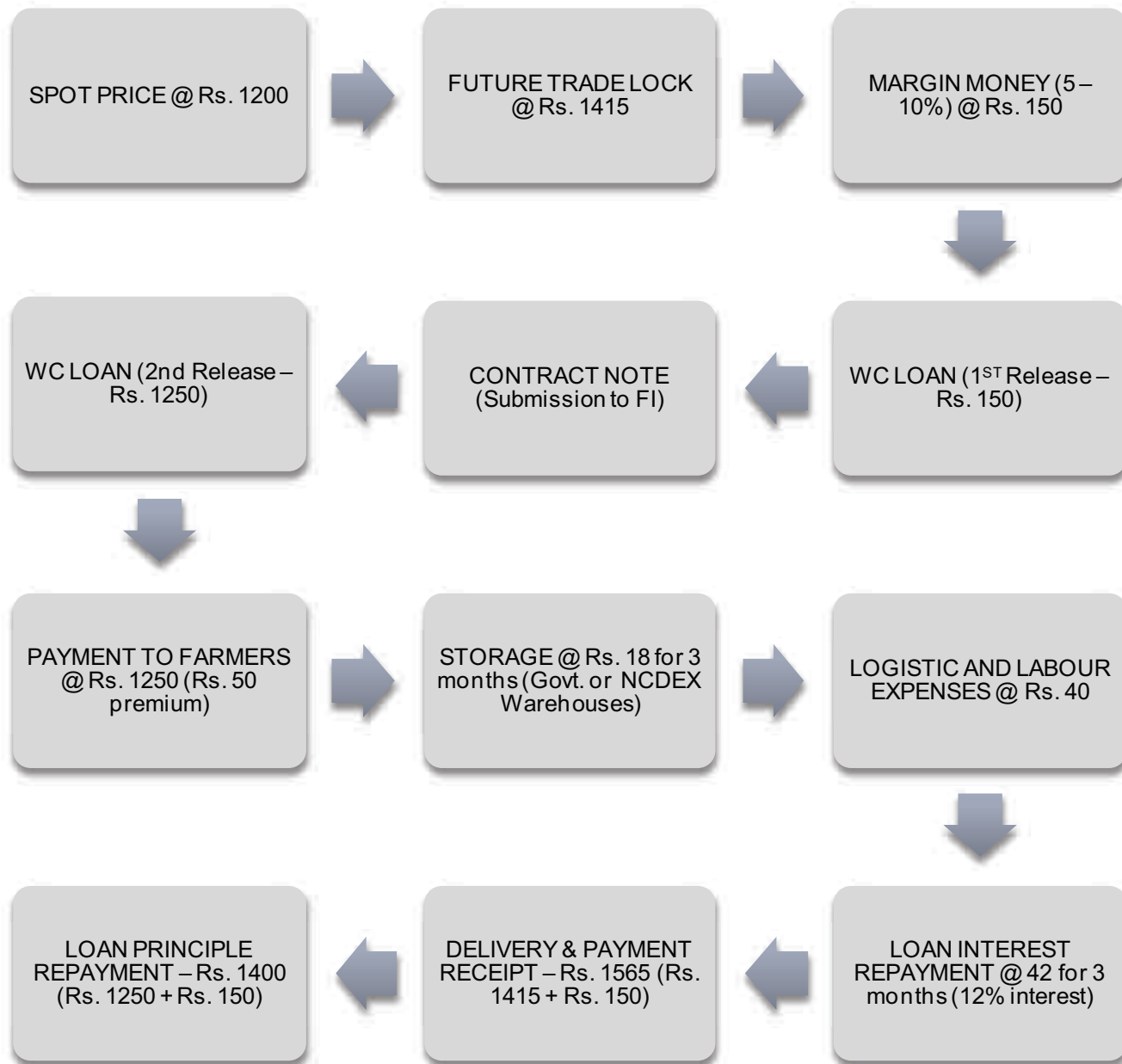
5.7. Farmer Producer Company's Futures Trade Cycle

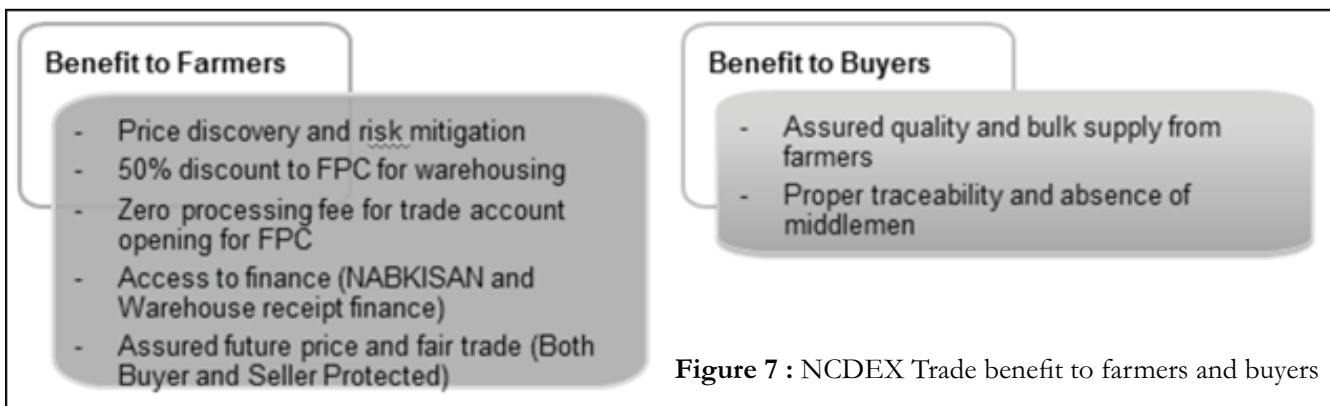
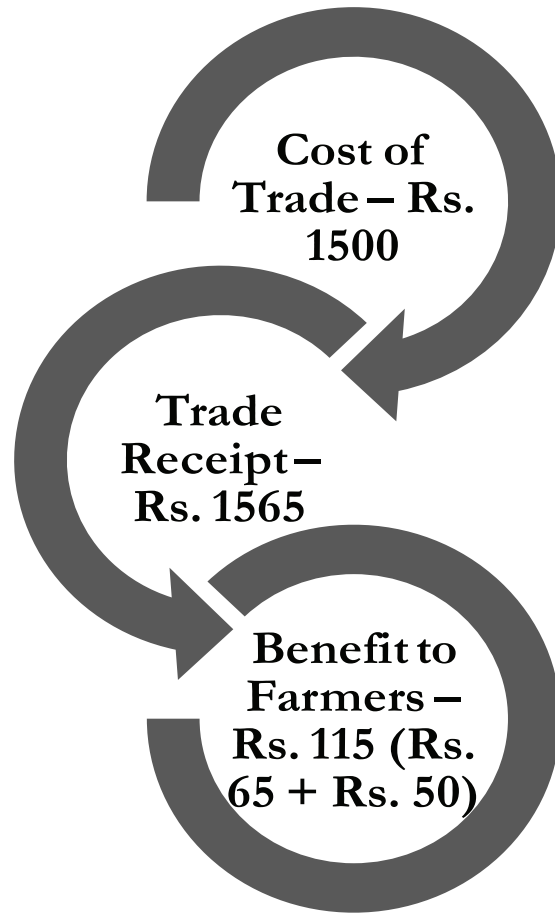
NCDEX and FPCs promoted by MACP are closely working together with support of ABPF cell (Grant Thornton). Currently about 30 FPCs are registered on the NCDEX platform while 10 FPCs have traded commodities like maize, soybean and turmeric. NCDEX has made Maha FPCs (Federation of Maharashtra FPCs) an authorized agency for registration of FPCs on recommendation of the ABPF cell. The documentation for the registration has been minimized for FPCs considering minimal SEBI norms after recommendation of ABPF cell. The following futures trade process is being depicted from the experience of such trade done in the year 2017 by 4 FPCs located in Jalgaon and Aurangabad region with support of the ABPF cell.

Figure 6: Complete Futures Trading Process

During the trade done in 2017, the spot price of maize was Rs. 1200 per quintal whereas Rs. 1415 per quintal was futures price after 3 months. The margin money required to initiate the trade was about Rs. 150 per quintal (11% of trade value). ABPF cell with support of NCDEX negotiated with NABKISAN for financing FPCs for working capital requirement to complete the trade cycle. The requirement of loan was for purchase of maize from member farmers and margin money for doing trade. Once the working capital sanction was received and margin money deposited, FPCs received the trade contract. After the trade contract was received, the balance working capital loan was provided to the FPCs for the procurement of commodity. Further, the commodity was stored either at government warehouses or NCDEX warehouses. On delivery date, FPCs carried or transported the commodity to nearby delivery centre of NCDEX where officials at delivery centres made physically verification of the commodity and approved. Finally, FPCs received the payment after 7 days of trade and they, thus, repaid the balance loan amount of NABKISAN.

Figure 6 : Complete Futures Trading Process





5.8. Note on FPC impacts

In Maharashtra, 26 FPC supported by MACP and 13 other FPCs are already into NCDEX Futures trading wherein some of them has carried out trial trade of 10- 30 MT. Swaroop FPC in Aurangabad sold about 10 MT or 100 quintals of Maize in the Futures market in March 2017 (at the rate of Rs. 1414 per quintal) for April, 2017. This was when Maize was sold at the rate of Rs. 1200 per quintal during March 2017. The firm basically made about Rs. 1000 per MT as net profit. Apparently, about Rs. 8 per Lakh of transacted volume has to be paid as service charge. This was a trial operation.

Assuming trade of even 20% of typical FPC potential volume of 2000 MT, FPCs can make about (200 MT* Rs. 100) or about Rs. 40,000. For higher volumes which may be about 40- 50% of FPCs member's capacity in which case the net yield (even accounting for Rs. 50- 100 as transport charges to collection centre and warehouse charges at the rate of 50 % of Rs. 200 per month) is likely to be even Rs 1 Lakh. In fact, many FPCs are into soybean trading. One FPC sold about 20MT of soybean at the rate of Rs. 2950 in Nov, 2017 for Dec, 2017. This was when soybean was marketed (in physical market) at the rate of Rs. 2600 per MT in Nov, 2017. The option of storage in warehouse of NCDEX for extended periods is also an advantage. Charges are about 2.75 per tonne per day or less than Rs. 100 per month. In such cases, if the FPC has access to working capital, it can purchase from members and sell through the NCDEX platform to benefit from price arbitrage. Several FPCs under the MACP are already into NCDEX trading.

Table 45 List of FPC's commodities traded on NCDEX Platform

S.No	Name of FPC	District	Commodity	Quantity(MT)
1	Changdeo FPC	Jalgaon	Maize	10
2	Swaroop FPC	Aurangabad	Maize	10
3	Development FPC	Jalgaon	Maize	10
4	Anjjani Khore FPC	Jalgaon	Maize	10
5	Godavari Valley Farmer's producer Company Limited	Hingoli	Turmeric	40
6	Surya Farmer's Producer Company Limited	Hingoli	Soyabean	10
7	Amdapur Agro Producer Company Limited	Buldhana	Soyabean	10
8	Mayureshwar Agri Horti producer Company Limited	Pune	Soyabean	100
9	Vidarbha Shetkari Krushi Mal Prakriya and Udyog	Amravati	Soyabean	10
10	Krushimauli Farmer Producer Company Limited	Washim	Soyabean	10
11	Paris Farmer Producer Company Limited	Washim	Soyabean	10
12	Fulumari Farmer Producer Company Limited	Washim	Soyabean	10
13	Shri Balnath Farmer Producer Company Limited	Washim	Soyabean	10
14	Krushisamrajya Farmer Producer Company Limited	Washim	Soyabean	10
15	Pariwartan Organic Farmer Producer Company Limited	Washim	Soyabean	40
16	Melghat Farmer Producer Company Limited	Amravati	Soyabean	10
17	Sant Dnyaneshwar farmer Producer Company Limited	Washim	Soyabean	10
18	Green Future Producer Company Limited	Washim	Soyabean	10
19	Kisan raj Agro Producer Company Limited	Akola	Soyabean	10
20	Akot Agro Producer Company Limited	Akola	Soyabean	10
21	Adhunik Kisan Producer Company Limited	Akola	Soyabean	10
22	Hirkani Farmer Producer Company Limited	Akola	Soyabean	10
23	Varhad Grains Agriculture Producer Company	Akola	Soyabean	10
24	Swaroop Shetkari Producer Company Limited	Aurangabad	Soyabean	30





CHAPTER 6

NEW DIMENSIONS OF TECHNOLOGY FOR FPCs

Highlights

This chapter presents the importance of technology for helping farmers and FPCs to increase their income. In order to meet the information needs of farmers, the Ministry of Agriculture and Farmers Welfare has developed different websites and portals offering information of market prices, soil health card, crop insurance and Government schemes. Mobile phone is utilized by private and public sector in agricultural advisory services for agronomic practices, crop protection advisories, weather forecasts and market prices. The main purpose of ‘Shetkari Masik’ is to provide information on agriculture and agro-suite modern technology to readers for additional growth of agricultural production. It provides guidance on all field crops, animal husbandry, poultry, fishery, forestry, agro industry, and biotechnology.

Kisan Suvidha is an omnibus mobile app providing information on weather of the current day and next 5 days, dealers, market prices, agro advisories, plant protection, IPM practices etc. Crop Insurance mobile app may be used to calculate the insurance premium for notified crops based on area, coverage amount and loan amount in case of loanee farmer. Agri-Market mobile app can be used to secure information on the market price of crops in the markets within 50 km of the device’s location.

“IFFCO Kisan” is an Indian agriculture farmer suvidha App which provides the latest mandi prices, weather forecast, agricultural advisory, best practices tips related to agriculture, animal husbandry, horticulture; a buyer and seller platform, and all agriculture related news and government schemes.

MyAgriGuru is an Agriculture app to assist farmers in their journey towards better and innovative farming while boosting their incomes.

RML Farmer is an agricultural app where farmers can keep up with latest commodity and mandi prices, precise usage of pesticides and fertilizers, farm and farmer related news, weather forecast and advisory, provides agricultural advice over news regarding government’s agricultural policies and government schemes.

Soil Health Card mobile app is used for registration of soil samples collected at farm fields and then for sending this information to the National Soil Health Card Portal. The samples are tested in labs and test results are entered by respective Soil Testing Lab officials.

‘AgroStar for Kisan’ App is a one-stop solution for all agri-needs. Farmer can access quality content and browse through a wide variety of quality products like seeds, crop protection, nutrition and also hardware belonging to best agri-brands in the country.

ANANTHAM is a one-stop digital solution, designed and developed to suit the crop solution requirements of Indian growers.

6.1. New Dimensions of Agriculture Extension: Portals and Mobile Apps for members of FPCs

The Ministry of Agriculture and Farmers' Welfare also aims to improve awareness and knowledge efficiency of farmers. A comprehensive ICT strategy has, therefore, been developed not only to reach out to farmers but also for planning and monitoring of schemes so that policy decisions can be taken at a faster pace and farmers can be benefited quickly. To empower different sections, different ICT strategies have been devised: Those who have access to digital infrastructure can get the information through websites or web portals; Those who have smart phones can access the same information through mobile apps; Those who have basic phones, can get this information through SMS advisories sent by experts; To get personalized information, farmers can call at the toll free number of Kisan Call Centre- 18001801551.

Ministry of Agriculture and Famers' Welfare is also implementing the National e-governance Plan-Agriculture (NeGP-A) also. Its aim is to achieve rapid development in India through use of information and Communication Technology for timely access to agriculture related information for farmers. Lack of information at proper time causes a huge loss to farmers. Under NeGP-A, around 60 online services have been developed for monitoring of schemes so that quick analysis and reporting can be done.

Under Digital India interventions of the Government- Agriculture 2.0(Digital Agriculture) has been given a prominent place for improving overall development of the country through increasing the agriculture output by ensuring availability of information on various agriculture and allied sectors activities. Some of the ICT interventions are given below:

Websites or Portals: In order to meet the information need of the farmers', Ministry of Agriculture and Farmers' Welfare has developed different websites and web portals that allow farmers to access the information using the internet information on market price, soil health card, crop insurance, government schemes etc., is available to farmers through websites. These websites also aim at enhancing communication between the research institution and the farmers. Farmers' Portal, Agmarknet, Soil Health Card Portal, e- NAM, Crop Insurance etc. are the web portals development for farmers.

Use of mobile Applications: Spreading agriculture related information to farmers in the poorest communities easily by proliferation of mobile phones. Few mobile apps developed for farmers are:




Kisan Suvidha mobile app : Provides information on five critical parameters- weather, input dealers, market price, plant protection and experts answer alerts. An additional tab directly connects the farmers with the Kisan Call Centre where agriculture experts ensure their queries. Unique features like extreme weather alerts and market price in the state as well as throughout India have been added to empower farmers in the best possible manner.




Pusa Krishi app : Helps farmers to get information about latest technology developed in research labs. This app is actually transferring the technology from "LAB to LAND". Agrimarket mobile App can be used to get the market price of crops in market within 50 km of the devices location. This app automatically captures the location of person using mobile GPS and fetches the market price.



Today, information is as important as hard resources like inputs, and sometimes more important. However, field level extension is limited. The requirement of field level extension personnel is estimated to be about 1.3 -1.5 million against the present availability of about 0.1 million personnel. The mobile phone comes in as a saviour here. Many initia-

tives have been taken in this regard to utilize mobile phones by private sector and public sector in agricultural advisory service for agronomic practices, crop protection advisories, weather forecasts and market prices. Many Government departments, the private sector and Agricultural Universities have developed various apps for farmers in regional languages. Some of these are presented below:

Table 46 : App's and service providers for providing agri-related information

Sr No	Name of App	Information	Logo
i)	Shetkari Masik App (Marathi)	<p>Shetkari Masik”, a popular low priced magazine, has been publishing issues every month since 1965. The main purpose of ‘Shetkari Masik’ is to provide information on agriculture and agro-suite modern technology to readers for additional growth in agricultural production. It provides guidance on all field crops, animal husbandry, poultry, fishery, forestry, agro industry and biotechnology</p> <p>Core features: -</p> <ul style="list-style-type: none"> - Shetkari Masik App is available in local ‘Marathi’ language. - Downloaded magazine can easily read anywhere, anytime in offline mode. - All previous magazine editions can also be downloaded. 	
ii)	Kisan Suvidha	<p>Kisan Suvidha is an omnibus mobile app developed to help farmers by providing relevant information promptly. On the click of a button, they can get information on weather of current day and next 5 days, dealers, market prices, agro advisories, plant protection, IPM Practices etc. Unique features like extreme weather alerts and market prices of commodity in the nearest area and the maximum price in state as well as throughout India have been added to empower farmers in the best possible manner.</p>	
iii)	Crop Insurance	<p>Crop Insurance mobile app may be used to calculate the Insurance Premium for notified crops based on area, coverage amount and loan amount in case of loanee farmer. It can also be used to get details of normal sum insured, extended sum insured, premium details and subsidy information of any notified crop in any notified area. Currently, this app is available in Hindi and English.</p>	
iv)	AgriMarket	<p>AgriMarket mobile app can be used to secure information about market price of crops within 50 km of the device's location. This app automatically captures the location of person using mobile GPS and fetches the market price of the crops in those markets which falls within the range of 50 km. There is another option to secure price of any market and any crop in case a person does not want to use GPS location.</p>	

v)	IFFCO Kisan	<p>“IFFCO Kisan” is an Indian agriculture farmer suvidha App, which helps the Indian farmer to make informed decisions by accessing customized agricultural information related to their need. The agriculture suvidha app is for Kisan suvidha and provides the latest mandi prices, weather forecast, agricultural advisory, best practices tips related to agriculture, Animal Husbandry, horticulture; a buyer and seller platform, and all agriculture related news and government schemes. This Indian farmer app is for Kisan suvidha, to provide agriculture alerts and agriculture advisories in 11 Indian languages in text as well as agriculture audio clips for the convenience of farmers who are most comfortable in their own language.</p>	
vi)	MyAgriGuru	<p>MyAgriGuru is an agriculture app available in India in Hindi and English which has been specifically designed for Indian farmers. It aims to assist them in their journey towards better and innovative farming while boosting their incomes. This agriculture app strives to ensure that every farmer in India has access to the latest agricultural technology and techniques so that they are able to raise healthy crops.</p>	
vii)	RML Farmer	<p>RML Farmer is an agriculture app where farmers can keep up with latest commodity and mandi prices, precise usage of pesticides and fertilizers, farm and farmers related news, weather forecast and advisory, provides agricultural advice all news regarding government’s agricultural policies and government schemes. Users can choose from over 450 crop varieties, 1300 mandis, 3500 weather locations across 50,000 villages and 17 states of India.</p>	
viii)	Soil Health Card mobile app	<p>Soil Health Card mobile app is used for registration of soil samples, collected at farm fields and for sending this information to the National Soil Health Card Portal. Registration requires entry of essential details about a farmer, his land holdings, crops for which recommendations are sought and fertilizers available for required to improve the health of the soil. Mobile application captures the longitude and latitude of the place automatically where samples are collected thus ensuring authenticity of the sample collection and correctness of the information. Mobile application does not require net connectivity during sample details entry from the fields. Data is stored and pushed on to a server whenever net connectivity is established. The samples are tested in labs and test results are entered by respective Soil Testing Lab officials.</p>	

ix)	Agro -Star	<p>‘AgroStar for Kisan’ App is a one-stop solution for all agri-needs. Farmer can access quality content and browse through a wide variety of quality products like seeds, crop protection, nutrition and also hardware belonging to best agri-brands in the country. The app shows crucial information like crop-solutions, the cost of product per acre, precautions, sowing methods, preventive and curative measures. It intelligently shows some of the common crop problems and diseases, the farmer or Kisan might face and recommends products that can be used to solve them with information about the dosage, spectrum, etc.</p> <p>The farmer can buy right from the app through a simple tap on “Want to Buy?”.</p>	
x)	Anantham	<p>It is a digital platform where the growers have access to Syngenta’s expertise and can enjoy all related information. With the latest inputs from their experts on and off the field, ANANTHAM is a one-stop digital solution, designed and developed to suit the crop solution requirements of Indian growers.</p>	





CHAPTER 7

MANAGEMENT OF FPC

Highlights

This chapter shall help us to understand the management structure of an FPC, their rights, powers and duties.

This section covers governance issues of a producer company in 3 major contexts: members, BoDs and office bearers. The authority, rights, voting rights and cessation of membership is considered. With regard to the BoDs, their powers and functions, appointment, removal and resignation is also considered.

Members act through the general body and the body alone can approve the budget and adopt annual accounts of the company, appoint auditor, amend MOA and AOA, etc.

Once a person becomes a member, she or he is entitled to exercise all the rights of a member like transfer the share and speak at general meeting, etc.

Each active member shall have a minimum of one vote. However, newly admitted members shall have no voting rights for at least 6 months or for a time period as specified by the board.

There are many ways by which a person ceases to be a member of the company like if he transfers his shares, forfeits his shares, death etc.

Every Producer Company should have a Board of Directors of not less than five and not more than fifteen.

In general, the board has authority and is responsible for formulating, supervising and monitoring the performance of the Producer Company in matters like determination of dividend payable, admission of new members, appointment of CEO and other officers, investment of the funds of the company in the ordinary course of its business, issue of bonus shares, etc.

The members who sign the memorandum and articles can designate therein the first BODs who shall govern the affairs of the company until the directors are elected by the members in a general meeting. Every director in a producer company, elected by members in general meeting, shall hold office for a period of not less than one year and not more than five years.

The directors are allowed to take reimbursement of actual expenses incurred by them while attending companies meeting.

Director of a company can be removed from office before the expiring of term by either shareholders of the company or by state or central government or the tribunal. A director can also resign from office in the manner provided by articles (if provided) or else by giving reasonable notice to the company.

Individual appointed to look after day-to-day affairs of the company like CEO, accountant, godown keeper etc. are the office bearers of the company.

BOD has to appoint a CEO who is accountable for the performance of the Producer Company both to the BOD and to the members. She or he shall be authorized to exercise the powers and discharge functions like doing administrative acts of a routine nature.

7.1. Governance of a Producer Company

To understand the governance of the company, it can be segregated in three major aspects.

Members or shareholders: A Producer Company can act only through its members. Thus, a company is created by the members, and can also be wound-up by them. The members act through their General Body.

Board of Directors : Elected by members

Office bearers : They are selected persons to manage day-to-day affairs of the company, including CEO, accountant etc. They are salaried personnel.

7.1.1. Members

A member is defined as a ‘person or producer institution, whether incorporated or not, admitted as a member of a Producer Company and who retains the qualifications necessary for continuance of membership; membership shall be voluntary and is available to all eligible members (criteria of membership defined in the Articles of Association of a company) who can participate and avail the facilities or services of the Producer Company’.

7.1.2. The Authority of Members on the Company

Basically , members act through the General Body, and the Body alone can: Approve the Budget and adopt the Annual Accounts of the Company; Approve the quantum of withheld price; Approve the patronage bonus; Authorize the issue of bonus shares; Appoint an auditor; Declare a dividend and decide on the distribution of patronage; Amend the Memorandum of Association and Articles of Association; Specify the conditions and limits of loans that may be given by the Board to any Director; and Approve or act on any other matters that are specifically reserved in the Articles for decision by the Members.

7.1.3. Rights of Members

Effectively, once a person becomes a member she or he is entitled to exercise all the rights of a member until she or he ceases to be a member in accordance with the provisions of the Act. The rights of a member are: to transfer his shares; to vote on resolutions at meetings of the Company; to request on an extraordinary general meeting of the Company or to be a joint requisition; to receive notice of a general meeting; to attend and speak in a general meeting; to move amendments to resolutions proposed at meetings; in case the member is a corporate body, to appoint a representative to attend and vote at general meetings on its behalf; to request the Company to circulate its resolutions; to enjoy the profits of the Company through the share of dividends; to elect directors and to participate in the management of the Company through them; to apply to the Company Law Board for relief in case of oppression or mismanagement; to apply to the Court for winding up of the Company; to get share in the surplus on winding up; and to have a share certificate issued to him in respect of his shares.

7.1.4. Voting Rights of a Member

- In case where the membership consists solely of individual members, the voting right is based on single votes for every member, irrespective of his or her shareholding or patronage.
- In case where the membership is composed of individuals as well as Producer institutions, voting rights is computed on the basis of a single vote for every member.
- Each active member has a minimum of one vote. Newly admitted Members have no voting rights for at least six months (or for a time period as specified by the Board).

7.1.5. Cessation of Membership

A member is seized off with his or her membership; by transferring his or her shares. In the case of a transfer, the person transferring will continue to be a member until the shares are registered in the name of the transferee; by forfeiting his or her shares; by a valid surrender; by death, but until the shares are transmitted, his or her estate will be valid for any money due on the shares; by the Company selling his shares in exercise of its right under its Articles of Association; by order of a Court or any other competent authority attaching and selling the shares, in satisfaction of a decree or claim; by the official assignee disclaiming his shares, on his adjudication as an insolvent; by recession of contract of membership, on the grounds of misrepresentation or mistake.

7.2. Board of Directors

Every Producer Company should have a Board of Directors of not less than five and not more than fifteen.

7.2.1 Powers and Functions of the Board

The Board may act only in areas not reserved to the General Body and may not exercise executive functions. In general, the Board has authority and is responsible for formulating, supervising, and monitoring of the performance of the Producer Company in respect of the following matters:

- Determination of the dividend payable.
- Determination of the quantum of withheld price and recommended patronage to be approved at general meeting.
- Admission of new members.
- Pursue and formulate organizational policy, objectives, establish long-term and annual objectives, and approve strategies and financial plans
- Appointment of a CEO and other officers, as may be specified in the Articles.
- Exercise superintendence, direction and control over CEO and other officers.
- Sanction any loan or advance, in connection with the business activities of the Producer Company to any member, not being a director or his relative.
- Investment of the funds of the company in the ordinary course of its business.
- Acquisition or disposal of property of the company in its ordinary course of business.
- Check that proper 'books of account' is maintained.
- Ensure that annual accounts are placed before the annual general meeting with the auditor's report.
- The Board may make recommendations in the case of those matters reserved for decision of the General Body.
- Approval of budget and adoption of annual accounts of the Producer Company; Approval of patronage bonus; Issue of bonus shares.
- Specify the conditions and limits of loans that may be given by the board to any director; and
- Approval of any transaction of the nature as is to be reserved in the articles for approval by the members.

All the powers specified above shall be exercised by the Board only by means of a resolution passed at its meeting and decision can be made or resolution adopted by 'circulation'.

7.2.2. Appointment of Directors

The members who sign the memorandum and articles may designate therein the first 'Board of Directors' who shall govern the affairs of the company until the directors are elected by the members in a general meeting, which has to be done within ninety days of incorporation of 'Producer Company'. Every director in a Producer Company, elected

by the members in the general meeting shall hold office for a period of not less than one year and not more than five years. Also, it must be noted that the entire Board of Directors, except the Chief Executive Officer and Expert Directors, is subject to retirement by rotation in a period of five years. Retirement of Directors shall take place at the Annual General Meeting where the re-election also shall take place. However, every director who retires is eligible for re-appointment by the Board.

7.2.3. Additional or Expert Directors

The Board may co-opt one or more expert directors or an additional director not exceeding one fifth of the total number of directors or appoint any other person as additional director for such period as the Board may deem fit.

7.2.4. Alternate Directors

The Board of Directors of a Producer Company may, if authorized by its Articles of Association or a resolution passed by the company in general meeting, appoint an alternative director to act in a place of an original director during his absence for not less than three months from the State in which the Board meetings are ordinarily held. The alternative director so appointed holds office for the period the original director is away from the State and when the original director returns to the State in which the meetings of the board are ordinarily held, the alternative director ceases to be the director.

7.2.5. Remuneration to Directors

Reimbursement of actual expenses of travelling, lodging and food incurred while attending the Company's meeting (Business or Non-business) is allowed. However, in case of business need of the Company, provision can be made for a fixed Daily Allowance (DA) and other facilities like communication allowances for all or only selected directors who are giving their extra time, for the promotion of the company's business activities.

7.2.6. Removal of a Director and Cessation of Directorship

a) By Shareholders of the Company: A director may be removed from office before the expiry of his term by shareholders of the Company.

The shareholders of a company may, by passing an ordinary resolution at a general meeting, remove a director before the expiry of the period of his office.

However, the following directors cannot be removed by the company unless otherwise stipulated in the terms of their appointment.

- A director appointed by the Central Government under Section 408;
- A director appointed by a financial institution under the terms of a loan agreement; and
- A director appointed by the National Company Law Tribunal.

b) The State or Central Government : A director may be removed by the Central Government. The Central Government may remove a director by making a case against the person and refer the same to the Tribunal with the request that the Tribunal inquire into the case and record the decision as to whether or not such a person is eligible to hold the office of director, or any other office connected with the conduct and management of any company.

c) The Tribunal : Where on application to the Tribunal for prevention of oppression under Section 397 and mismanagement under Section 398 of the Act, the Tribunal finds that the relief ought to be granted, it may terminate or set aside any agreement of the company with the director or managing director or other managerial personal on such

terms and conditions as it think just and equitable. The court may constitute an advisory board as a proper administrator. Where the appointment of the director is so terminated or set aside, he cannot, except with the leave of the Tribunal, serve any company in a managerial capacity for a period of five years. He also cannot sue the company for damages or compensation for loss of office.

7.2.7. Resignation of Directors

A director may resign his office in the manner provided by the Articles. If the Articles contain no provision regarding the resignation by a director, he may resign his office at any time by giving reasonable notice to the Company, no matter whether the Company accepts it or not. A Chief Executive or Managing or Whole Time Director, however, cannot resign merely by giving notice. His resignation is governed by the terms and conditions of his appointment. In this case, the formal acceptance of the resignation is essential so as to make it effective, for he has to be relieved of his duties and obligations.

7.2.8. Penalty of a Director

If a director or an officer of a Producer Company will fully fail to furnish any information relating to the affairs of the Producer Company required by a Member or a person duly authorized on this behalf, he shall be liable to imprisonment for a term which may extend to six months and with a fine equivalent to five per cent of the turnover of the company during preceding financial year. Thus, if a director or officer of a Producer Company

- makes a default in handing over the custody of books of account and other documents or property in his custody to the Producer Company of which he is a director or officer; or
- fails to convene the annual general meeting or other general meetings;

She or he shall be punishable with a fine which may extend to Rs. 1 Lakh, and in the case of a continuing default or failure, with an additional fine which may extend to Rs. 10,000 for every day during which such default or failure continues.

7.3 Office Bearers

Office bearers are the individuals appointed to look after the day-to-day affairs of the company, like CEO, accountant, go down keeper etc. They are salaried people of the company. Fair representation should be given to women members as officer bearers.

7.3.1. Chief Executive Officer

Board of Directors has to appoint full time CEO amongst persons other than members. The qualification, experience and the terms and conditions of services shall be decided by the Board. The CEO shall be the ex-officio Director of the Board and shall not retire by rotation. The CEO shall be entrusted with substantial powers of management as may be determined by the Board. She or he is accountable for the performance of the Producer Company, both, to the Board of Directors and to the Members. The CEO shall be authorized to exercise the powers and discharge the functions as described below:

- Do administrative acts of a routine nature including managing the day-to-day affairs of the Company;
- Operate bank accounts or authorize any person, subject to the general or special approval of the Board;
- Make arrangements for safe custody of cash and other assets of the Company;

- Sign business related documents as may be authorized by the Board for and on behalf of the Producer Company;
- Maintain proper books of account prepare annual accounts, place the audited accounts before the Board and in the annual general meeting of the Members;
- Furnish the members with periodic information to appraise them of the operation and functions of the Company;
- Make appointments to posts in accordance with the powers delegated to him by the Board;
- Assist the Board in the formation of goals, objectives, strategies, plans and policies;
- Advise the Board with respect to legal and regulatory matters concerning the proposed and ongoing activities and take necessary action in respect there of;
- Exercise the powers as may be necessary in the ordinary course of business;
- Discharge such other functions, and exercise such other powers, as may be delegated by the Board;
- To provide timely information to the members and Board of Directors for scheduled company meetings or emergency or short notice meetings;
- Meetings or emergency or short notice meetings.





CHAPTER 8

STATUTORY COMPLIANCES FOR FPCs'

Highlights

This chapter highlights the statutory compliances required to be met by an FPC.

Annual filing of documents, registers to be maintained and various meetings are considered here. Financial management in terms of shares and books of accounts are important.

FPC has to ensure electronic filing to Registrar of Companies(ROC) like Balance Sheet, Profit and Loss, Annual Return and compliance certificate.

The FPC has to maintain statutory registers such as KYC register, Minute Book, Register of Members, Books of Accounts, etc.

It is during an AGM that directors are elected or selected, and also, decisions on replacing or re-appointing of auditors are made. The annual report of the company is presented in this meeting. Also, decisions on distribution of dividend are taken in these meetings.

Every General Body meeting, other than AGM, is an Extraordinary General Meeting. It is usually called by the BoD for transacting some urgent business which has to be done before the next annual meeting.

In any circumstances, the Board shall meet not less than once in every three months, and at least four such meetings shall be held in every year.

The presence of at least three Directors or one-third of its total strength, whichever is higher, shall form the quorum for the Board's meeting.

Share capital is the total of the payments made to the company by all the shareholders. The authorized capital of a company is the maximum amount of share capital for which shares can be issued by a company. Paid up share capital of a company is the amount of money for which shares were issued to the shareholder for which payment was made by the shareholder. Any Producer Company may, issue bonus shares by capitalization of amounts from general reserves, in proportion to the shares held by the members on the date of issue of such shares.

Every Producer Company maintains a register containing particulars of all the investments, showing the names of the companies in which shares have been acquired, number and value of shares; the date of acquisition; and the manner and price at which any of the shares have been subsequently disposed off.

8.1. Annual Filing

From September 16, 2006, electronic filing is mandatory for all the companies and physical documents are not permissible for filing. As a part of annual filing for companies incorporated under the Companies Act, 1956, it is required to file the following documents along with the e-Forms to the Registrar of Companies (RoC):

- Balance-Sheet - Form 23AC to be filed by all companies
- Profit and Loss Account - Form 23ACA to be filed by all companies
- Annual Return - Form 20B to be filed by companies having share capital
- Annual Return - Form 21A to be filed by companies without share capital
- Compliance Certificate - Form 66 to be filed by companies with paid up capital between Rs. 10 Lakh to Rs. 2 Crore.

8.2. Committee of Directors

Committee may be formed to assist BoDs in efficient functioning. The CEO or director of the Producer Company shall be a member of such committee. Every such committee shall function under the general super intendence, direction and control of the Board, for such duration and in such manner as the board may direct. The minutes of each meeting of the committee is to be placed before the Board at its next meeting.

8.3. Registers to Be Maintained by the Company

It is mandatory for FPC to maintain the register's listed below, failing which is punishable under the Act.

8.3.1. KYC Register

To be maintained for Directors, Managing Directors, Managers and Secretary, etc.

8.3.2. Statutory Registers

- i. Minute books of Board Meetings and meetings of committee of the Board [Section 193]
- ii. Copy of every instrument deed, etc., creating any charge which requires registration [Section 136]
- iii. Register of charges [Section 143]
- iv. Register of members [Section 150]
- v. Index of members [Section 151]
- vi. Copies of annual returns and certificates and documents required to be annexed thereto [Section 159 to 161]
- vii. Minute books of general meetings [Section 193]
- viii. Register of dividend declared and remaining unpaid [Section 205]
- ix. Proper books of accounts [Section 209]
- x. Proper books of accounts in relation to transactions effected at Branch Office.
- xi. Register of contracts, companies and firms in which directors are interested [Section 301].
- xii. Register of directors, etc.[Section 303]
- xiii. Register of directors' share-holdings, etc. [Section 307]
- xiv. Register of inter-corporate loans and investments [section 372A]

- xv. Register of renewed and duplicate certificate [Rule 7(2) of the Companies (Issue of Share Certificates) Rules, 1960]
- xvi. Register and index of beneficial owners.
- xvii. Books of accounts of producer company [Section 581ZE(1)]
- xviii. Register of particulars of investments of producer companies [Section 581 ZL(7)].
- xix. Share or Debenture transfer register [Section 108]
- xx. Inventory or Fixed assets register.

8.4. Meetings

The Companies Act, 1956, has elaborate provisions for holding and conducting meetings. It is necessary to observe those provisions; failing to adhere with it will disqualify the decisions taken and cannot be brought into effect.

8.4.1. Annual General Meeting (AGM)

Shareholders are the owners of the Producer Company, thus, it is desirable that they should meet once in a year to discuss and review the company's work. It is during the AGM that directors are elected or selected, and also, decisions on replacing or re-appointing of auditors are made. The annual report of the company is presented in this meeting. Also, decisions on distribution of dividend are taken in these meetings.

- A Company shall hold the first general meeting within a period of 90 days from the date of its incorporation and conduct the AGM every year.
- Not more than fifteen months shall elapse between the date of one AGM and that of the next.
- An AGM of the Company shall be called by giving not less than fourteen days' prior notice in writing.
- The Registrar may, for any special reason, permit extension of the time for holding any annual general meeting (not being the first annual general meeting) by a period not exceeding three months.
- The Members shall adopt the articles of the Producer Company and appoint directors of its Board in the annual general meeting.
- The notice calling the annual general meeting shall be accompanied by the following documents, namely:
 - Agenda of the annual general meeting
 - The minutes of the previous annual general meeting or the extraordinary general meeting
 - The names of candidates for election, if any, to the office of director, including a statement of qualifications in respect of each candidate
 - The audited balance-sheet and profit and loss accounts of the Producer Company and its subsidiary, if any
 - The state of affairs of the Producer Company
 - The amount proposed to be carried to reserve
 - The amount to be paid as limited return on share capital
 - The amount proposed to be disbursed as patronage bonus
 - The material changes and commitments, if any, affecting the financial position of the Producer Company and its subsidiary

- Any other matter of importance relating to energy conservation, environmental protection, expenditure or earnings in foreign exchanges
- Any other matter which is required to be, or may be, specified by the Board
- The text of the draft resolution for appointment of auditors
- The text of any draft resolution proposing amendment to the memorandum or articles to be considered at the general meeting, along with the recommendations of the Board
- Every Annual General Meeting shall be called at a time during business hours on a day that is not a public holiday. It shall be held at the registered office of the Producer Company or at some other place within the city, town or village in which the registered office of the Company is situated
- The notice of the general meeting indicating the date, time and place of the meeting shall be sent to every Member and auditor of the Producer Company
- Unless the articles of the Producer Company provide for a larger number, one-fourth of the total number of members of the Producer Company shall be the quorum for its annual general meeting
- The proceedings of every annual general meeting along with the Director's Report, the audited balance-sheet and the profit and loss account shall be filed with the Registrar within sixty days of the date on which the annual general meeting is held, with an annual return along with the filing fee as applicable under the Act.
- In the case where a Producer Company is formed by producer institutions, such institutions shall be represented in the general body through their Chairmen or the Chief Executives.

8.4.2. Extraordinary General Meeting Convened by Board

Every general meeting, other than AGM, is an extraordinary general meeting. It is usually called by the BoD for transacting some urgent business for which has to be done before the next annual meeting. It has to be done as per the provisions of Companies law. The Board of the Directors shall (on the requisition made in writing duly signed and setting out the matters for consideration, made by one-third of the members entitled to vote in any general meeting), proceed to call an extraordinary general meeting in accordance with the provisions made in the Companies' Act

8.4.3. Meetings of the Board of Directors

The Board may meet as often as it may consider necessary for transaction of the business. However, it shall meet at least once in every two months. In any circumstances, the Board shall meet not less than once in every three months and at least four such meetings shall be held in every year.

- The Board meeting shall be called generally with seven days' notice (should be issued by CEO) but in case of emergencies, it can be called at a shorter notice
- In case, the CEO fails to issue a notice for holding a meeting of the Board, she or he will be punishable with fine which may extend to one thousand rupees.
- Every year after the constitution of the Board, in the first Board meeting the Board shall elect the Chairman of the Producer Company for a period of two years.
- The Chairman shall preside over the meeting of the Board. In case of his absence, the directors present shall elect one of the elected directors as the Chairman of the meeting.
- Each member of the Board shall have one vote.

- Decisions at the Board meeting shall be arrived at by majority votes of the directors present. In case of a tie, the Chairman of the meeting shall have the casting vote in addition to his usual vote except in case of election of the Chairman. Tie in case of election of chairman, the matter shall be decided by draw of lots.
- An elected member of the Board who is absent from three consecutive meetings of the Board without obtaining the leave of absence, shall cease to be a member of the Board.
- No member shall be present at discussion or vote on any matter in which he has personal interest.

Quorum

The presence of at least three Directors or one third of its total strength, whichever is higher, shall form the quorum for the Board's meeting. In absence of quorum in a meeting, then the meeting shall automatically stand adjourned till the same day in the next week, at the same time and place, and if that day is public holiday, till the next succeeding day, which is not a public holiday, at the same time and place.

8.5. Financial Management of Producer Company

8.5.1. Share Capital

Share capital is the total of the payments made to the company by all the shareholders on their shares. In a Producer Company, it shall consist of only equity shares and the shares held by a member should, as far as possible, be in proportion to the patronage of the Company. The active members may, if so provided in the Articles, have special rights and the Producer Company may issue appropriate instruments to them in respect of such special rights. The said instruments of the Producer Company issued shall, after obtaining approval of the Board, be transferable to any other active member of that Producer Company. It is mandatory to issue a share certificate to the shareholders as prescribed by Companies Act Format.

a) Authorized Share Capital of a Company

The authorized capital of a company is the maximum amount of share capital for which shares can be issued by a company. The initial authorized capital of an FPC is usually Rs.1 Lakh. The authorized capital can be increased by the company at any time with shareholders' approval and by paying additional fee to the Registrar of Companies.

b) Paid-up Share Capital of a Company

Paid up share capital of a company is the amount of money for which shares were issued to the shareholders for which payment was made by the shareholder. Paid up capital will always be less than authorized capital as a company cannot issue shares above its authorized capital. The companies Act, 2013 earlier mandated that all private limited companies have a minimum paid up capital of Rs. 1 Lakh. However, the Companies Amendment Act, 2015 relaxed the minimum requirement for paid up capital. Therefore, there is no requirement for any minimum capital to be invested to start a producer company.

8.5.2. Procedure for alteration of share capital

a) Increase of capital

The authorized capital could be increased by creation of new shares by passing an ordinary resolution in general meeting. The alteration does not affect the company's issued capital, nor can the resolution compel the existing shareholders to take the additional shares.

b) Procedure for increasing capital

- The Articles of Association of the company should confer this power. Where the articles are silent, they have to be suitably amended so as to provide the necessary power.
- The extent of increase of share capital will have to be decided keeping in view the requirements of the Company.
- The Board will decide the extent of increase and the date or time of the general meeting for passing the necessary resolution for increasing the share capital. It will also finalize amendments to the articles, if necessary.
- The Board will also approve the draft notice of the general meeting, the necessary resolutions and explanatory statements relating thereto and authorize the Company Secretary to convene the general meeting.
- Form No. 23 has to be filed within 30 days of passing the resolutions along with the filing fees and enclosures as prescribed in Schedule X to the Act with the Registrar of Companies.
- In case of consolidation or division, the members must be issued new certificates in lieu of the existing share certificates, by making appropriate entries in the register of members. Whereas, in cancellation of shares, a notice to the Registrar of Companies in Form No. 5, along with the fees as prescribed in Schedule X to the Act.

8.5.3. Issue of Bonus Share

Any Producer Company may, upon recommendations of the Board and passing of resolution in the general meeting, issue bonus shares by capitalization of amounts from general reserves, in proportion to the shares held by the members on the date of issue of such shares. The procedure for issue of bonus shares:

- The Share Capital, as increased by the proposed Bonus Shares, should be well within the authorized capital of the Company. If not, necessary steps should be taken to increase the authorized capital, by amending the capital clause of the Memorandum of Association.
- Recommendation for capitalization of reserves should be made by the Board by passing a resolution.
- A resolution should be passed in the general meeting duly convened and filed with the signatory within 30 days together with requisite documents and fee.
- Where the Company has availed of any loan facility from term lending institutions, prior permission is to be obtained from the institution as per the term lending agreement.

The allotment of Bonus shares should be made by the Board after approval of members in general meeting and accordingly share certificate should be issued to the Members. Form 2 should be filed with the Registrar within 30 days also with requisite fee.

8.6. Loans and Investments

The members of the Producer Company are primary producers, and thus, are in need of financial assistance from time to time. Hence, a special provision has been made in the Act of Producer Company of giving loans to its members. The Company can provide financial assistance to its members through:

- Credit facility, to any member, in connection with the business of the Company, for a period not exceeding six months.
- Loans and advances, against security specified in articles to any member, repayable within a period.

8.7. Books of Account

The capital invested by shareholders in the company has been utilized for running the business of the Company. The Company, on the other hand, has to maintain a 'books of account' of each and every penny used for the purpose of running the company. Chief Executive Officer (CEO), every director of the company (in absence of CEO), every officer, other employee and agent of the company is responsible for keeping of 'Books of Accounts'. A proper 'books of account' of Producer Company should be kept at its registered office with respect to:

- all sums of money received and expended by the Producer Company and the matters in respect of which the receipts and expenditure take place;
- all sales and purchase of goods by the Producer Company;
- the instruments of liability executed by or on behalf of the Producer Company;
- the assets and liabilities of the Producer Company;
- in case of a Producer Company engaged in production, processing and manufacturing, the particulars relating to utilization of materials or labour or other items of costs.

8.8. Balance-Sheet and Profit and Loss Account

A Producer Company has to prepare a Balance Sheet and Profit and Loss account for each financial year, which will be presented before the shareholders at the annual general meeting of the company. They should be attested and signed by two directors (on behalf of BoD) and CEO of the company. Every producer company has to file its Directors' Report, the audited balance sheet and profit and loss account along with the proceedings and the annual return with the Registrar within 60 days from the day on which the balance sheet and profit and loss account were laid before the members at the annual general meeting.

8.9. General and Other Reserves

Every Producer Company shall maintain a general reserve in every financial year, in addition to any reserve maintained by it, as may be specified in articles. In a case where the Producer Company does not have sufficient funds in any financial year for transfer to maintain the reserves as may be specified in articles, the contribution to the reserve shall be shared amongst the Members in proportion to their patronage in the business of that company in that year.

8.10 Delegation of Financial Powers

- A CEO can withdraw cash up to the limit of Rs. 5000 from the Company's bank account;
- The cash payment against any purchase of goods or services in any circumstances shall be limited to Rs. 2000.
- All payments above Rs. 2000 shall be paid by cheque only. In case of non- acceptance of cheque by any institution or individual, cash payment only with the approval of a committee comprising of 3 directors.
- Purchase of all consumable goods and services for use by the Company for its business operations or managing its affairs up to Rs. 5000 following stipulated purchase procedure.
- Work advance may be taken from the office by staff for the following purpose:
- Travel expenses and Daily Allowance(s)
- Procurement of official item(s)

- Scrutinize advance account of staff by concerned employee to ensure that previous outstanding balance(s) has been cleared
- Ensure proper approval of departmental head on the payment voucher or application for advance, before fresh advance is given to any staff.

Accounting for advance taken from the Company:

- Before request for advance is granted, ensure that the proposed expense is within the limits of plan and budget for the relevant year
- Ensure that purpose of work advance is mentioned on the voucher
- Also ensure that advance should be sanctioned only when the previous drawings are settled and it is urgent.
- Ensure that accounts are settled within 15 days or immediately after the work is completed whichever is earlier.

8.11. Audit and Accounts

It is compulsory to conduct internal audit for a Producer Company. Internal audit of its accounts should be carried out, at such interval and in such manner as may be specified in its article of association, by a chartered accountant.

Penalties for Non-Compliance Under the Companies Act 2013

1. **Filing of Balance Sheet not undertaken in stipulated time:** If the balance sheet is not filed in time, the PC has to pay 12 times more than the normal fee as penalty. Apart from this, under section 137 the PC has to pay Rs 1000 per day up to Rs 10 Lakh and every director is liable for imprisonment for six months or penalty of Rs 1 Lakh; which can be increased to a limit of Rs 5 Lakh. Both penalties may be charged.
2. **No Filing of Annual Report :** If the annual report is not filed in stipulated time the PC has to pay a fine 12 times more than the normal fees and get the annual report filled with ROC. Apart from this, under section 12 the company is liable for fine of Rs 50,000 which can be increased up to Rs 5 Lakh and every director is liable for imprisonment for six months or fine of Rs 50,000 which can be increased up to Rs 5 Lakh or both penalties can be charged.
3. **If share certificate wrongly distributed :** In this case, under section 46 of Company Act 2013, PC is liable for a fine of 5 times the amount of share value or maximum 10 times the value of share and case against fraudulence can also be filed.
4. **If share certificate is not distributed :** Under section 46 of the Company Act 2013, PC can be penalized with Rs 25,000 which can be increased to maximum of 5 Lakh and every director can be fined with Rs 10,000 which can be increased up to 1 Lakh.
5. **If shareholder's registry is not maintained :** Under section 88 of the Company Act 2013 every director and the company is liable for a fine of Rs 50,000 which can be increased up to Rs 3 Lakh; and if any necessary action is not taken, the company may be fined Rs 1000 per day.
6. **If AGM is not conducted :** Under section 99 of the Company Act 2013 every director and company is liable for a fine of Rs 1 Lakh. If necessary action is not taken the penalty amount can be Rs 5,000 per day.
7. **If Minutes of Meeting (MoM) is not maintained or written :** Under section 118 of the Company Act 2013, PC can be fined Rs 25,000 and directors can be fined for Rs 5,000.



SECTION - V

**SCHEMES AND
PROGRAMMES 2017-18**





CHAPTER 1

SCHEMES OF THE MINISTRY OF AGRICULTURE AND FARMERS' WELFARE

Highlights

Pradhan Mantri Fasal Bima Yojana (PMFBY) offers insurance protection to food crops, oilseeds and annual horticultural/commercial crops notified by the state government with uniform maximum premium for all farmers.

Soil health card is to be provided to all farm holdings in the country at an interval of 2 years so as to enable farmers to apply appropriate recommended dosages of nutrients for crop production and improving soil health and its fertility.

Prime Minister Krishi Sinchayee Yojana ensures access to some means of protective irrigation to all agricultural farms in the country to produce per drop more crop. The scheme also strategizes by focusing on end to end solution in irrigation supply chain, viz. water sources, distribution network, efficient farm level applications, extension services on new technologies and information etc. based on comprehensive planning process at district /state level.

National Agriculture Market provides reforms in the agri-marketing sector and also promotes online marketing of agri-commodities across the country.

Paramparagat Krishi Vikas Yojana is an elaborated component of Soil Health Management (SHM) of Major Project. National Mission for Sustainable Agriculture (NMSA). Under PKVY Organic farming is promoted through adoption of an organic village by cluster approach and PGS (Participatory Guarantee System) certification.

Agriculture credit safeguards the farmers from the culture of money lenders, farmers can avail loan facility from banks. Loan facility is available through a large network of Commercial Banks, Regional Rural Banks (RRBs) and Cooperative Credit Institutions in the country to fulfil the crop loan and term loan needs of the farmers.

Schemes of the Ministry Ranges from Crop Insurance to Agricultural Credit

1.1. Agricultural Insurance

Pradhan Mantri Fasal Bima Yojana (PMFBY)

Insurance protection is offered to food crops, oilseeds and annual horticultural/commercial crops notified by the state government; uniform maximum premium for all farmers is allowed.

- i) Kharif season -2% of sum insured.
- ii) Rabi season: -1.5% of sum insured
- iii) Annual commercial/horticultural crops-5% of sum insured.

The difference between actual premium and rate of insurance payable by farmers is to be shared equally by the centre and State, claims of full sum Insured (SI) is offered if the sowing is not done due to adverse weather /climate,

claims up to 25% of sum insured will be paid for prevented sowing/planting risk ; When the crop yield is less than the guaranteed yield of notified crops, the claim payment equal to shortfall in yield is payable to all insured farmers ; post-harvest losses assessment for damage to crops is cut and spread in the field up to 14 days on account of cyclonic rain and unseasonal rain in the entire country.

The scheme safeguards the farmers financially against natural risks like natural disasters/calamities,insect,pests and diseases and adverse weather conditions, three insurance schemes are being implemented namely, Pradhan Mantri Fasal Bima Yojana (PMFBY), Weather Based Crop Insurance Scheme (WBCIS) and Pilot Unified Package Insurance Scheme (UPIS).

Contact:

Nearest branches of bank/PACS/Cooperative banks/empanelled general insurance companies notified for the area and district Agricultural Officer/Block Development Officer may be contacted or visit web portal www.agri-insurance.gov.in.

1.2. Soil Health Card

Soil conservation and micronutrients

Soil health card scheme was launched on 19th February 2015. Under the scheme, soil health card is to be provided to all farm holdings in the country at an interval of 2 years so as to enable the farmers to apply appropriate and recommended dosages of nutrients for crop growth and improving soil health and its fertility.

Contact:

District Agricultural Officer/District Horticultural Officer/Project Director, ATMA

1.3. Irrigation

Prime Minister Krishi Sinchayee Yojana (PMKSY)

PMKSY has an outlay of Rs 50,000 crore for a period of 5 years (2015-16 to 2019-20). The vision of PMKSY is to ensure access to some means of protective irrigation to all agricultural farms in the country to produce per drop more crop. PMKSY is strategized by focusing on end to end solution in irrigation supply chain, viz water sources, distribution network, efficient farm level applications, extension services on new technologies and information etc. based on comprehensive planning process at district /state level.

Contact:

District Agriculture Officer/District Soil Conservation Officer/Project Director, ATMA/District Horticulture Officer.

1.4. Agricultural Marketing

National Agriculture Market (e-NAM)

With the objective to usher reforms in the agri-marketing sector and promote online marketing of agri commodities across the country and to provide maximum benefit to the farmers, the Government has approved a scheme to implement National Agriculture Market (NAM) in 2015.Under the scheme, a web based platform has been deployed across 250 regulated markets to promote online trading, digitization of entire functioning of markets outline gate entry lot making, bidding generation of e-sale agreement and e-payment etc. removes information asymmetry,increase

transparency in the transaction process and enhance accessibility to markets across the country. This would entail real benefits to the farmers. So far, 250 markets across 10 states namely Andhra Pradesh (12), Chhattisgarh (5), Gujarat (40), Haryana (37), Himachal Pradesh (20), Rajasthan (11), Telangana (44) and UP (66) has been integrated with e-NAM portal. Farmers can get the price information for their produce which is available on AGMARKNET website (www.agmarknet.nic.in) or through Kisan Call Centres or SMS or buyer seller portal available at www.farmer.gov.in/buysell.htm.

Contact:

Commercial banks, Regional Rural banks, State Cooperative Banks etc.; National Cooperative Development Corporation (NCDC) for projects by Cooperatives; detailed information is available in operational Guidelines for Integrated Scheme for Agricultural Marketing (ISAM) on website.

For further details please contact Shri Subhash Sharma, PMU for e-NAM, Small Farmers Agri business Consortium (SFAC), New Delhi (e-mail id-nam@sfac.in). Details of the scheme are also available at www.enam.gov.in.

1.5. Organic Farming

Paramparagat Krishi Vikas Yojana (PKVY)

Organic agriculture is the production of agriculture products free from chemicals and pesticides residues by adopting eco-friendly low cost technologies. PKVY is an elaborated component of Soil Health Management (SHM) of Major Project National Mission of Sustainable Agriculture (NMSA). Under PKVY Organic farming is promoted through adoption of an organic village by cluster approach and PGS (Participatory Guarantee System) certification.

The cluster chosen for Organic Farming shall be 50 acres at an extent and in a contiguous form as much possible. In order to facilitate this, the ceiling of subsidy that farmer is eligible is a maximum of one hectare and the total financial assistance eligible for 50 acre cluster shall be a maximum of Rs. 10 lakh for farmer members and Rs. 4.95 lakh for mobilization and PGS Certification. Of the total number of farmers in a cluster, a minimum of 65% should belong to small marginal categories.

Contact:

At State level : Director (Horticulture/Agriculture) of North Eastern States.

At District level : District Horticulture Officers, District Agriculture Officers/Project Director, ATMA in North Eastern States.

1.6. Agriculture Credit

To save themselves from the clutches of money lenders, farmers can avail loan facility from banks. Loan facility is available through a large network of Commercial Banks, Regional Rural Banks (RRBs) and Cooperative Credit Institution in the country to fulfil the crop loan and term loan needs of the farmers.

Contact:

Joint Secretary (cooperation), department of Agriculture Cooperation and Farmer's Welfare Krishi Bhawan. Regional Offices of NAFED and SFAC located in state Capital. District level Offices of Cooperative Marketing / Commodities Federations. Marketing Cooperative Societies at Tehsil Level and FPOs/ FPCs at Block Level.





CHAPTER 2

SCHEMES OF THE MINISTRY OF FOOD PROCESSING INDUSTRIES

Highlights

The important schemes of the MoFPI include the Mega Food Park, Cold Chain and Kisan Sampada schemes.

Mega Food Park Scheme aims at providing a mechanism to link agricultural production to the market by bringing together farmers, processors and retailers so as to ensure maximizing value addition, minimizing wastage, increasing farmers' income and creating employment opportunities particularly in the rural sector.

Cold Chain, Value Addition and Preservation Infrastructure is to provide integrated cold chain and preservation infrastructure facilities without any break from the farm gate to the consumer.

The Kisan Sampada Backward and Forward Linkages scheme provides effective and seamless backward and forward integration for processed food industry by plugging the gaps in the supply chain in terms of availability of raw material and linkages with the market.

The main objective of the scheme for creation /expansion of Food Processing and Preservation Capacities is modernization/ expansion of existing food processing units with a view of increasing the level of processing, value addition leading to reduction of wastage.

The Scheme for Agro-processing Cluster aims at development of modern infrastructure and common facilities to encourage group of entrepreneurs to set up food processing units based on a cluster approach.

The important schemes of the MoFPI include the Mega Food Park, Cold Chain and Kisan Sampada.

2.1. Mega Food Parks Scheme

The Scheme of Mega Food Park aims at providing a mechanism to link agricultural production to the market by bringing together farmers, processors and retailers so as to ensure maximizing value addition, minimizing wastage, increasing farmers' income and creating employment opportunities particularly in rural sector.

Pattern of Assistance: The Scheme envisages grant-in-aid @ 35% of eligible project cost in general areas and @50% of eligible project cost in hilly / ITDP and difficult areas subject to max. of USD 1.5 million per project.

Eligibility criteria:

- The combined net worth of the promoters/proposed shareholders of Implementing Agencies (IAs) should not be less than 1.5 times of the grant amount sought.
- The IAs needs to bring in at least 20 percent of the total project cost as equity/contribution in general areas and at least 10 percent of the total project cost in difficult and hilly areas.
- Minimum land area - 10 acres. Minimum of 5 Food Processing units of 25 crores cumulative to be set up.

Exclusions:

- The eligible project cost will exclude cost of land, pre-operative expenses and margin money for working capital.
- Past Promoters of Mega Food Parks are not eligible.

Eligible Implementing Agencies under the Scheme: All implementing agencies/organizations such as Govt. / PSUs / Joint Ventures / NGOs / Cooperatives / SHGs / Private Sector/individuals etc. will be eligible.

2.2. Scheme for Cold Chain, Value Addition and Preservation Infrastructure

The objective of the scheme of Cold Chain, Value Addition and Preservation Infrastructure is to provide integrated cold chain and preservation infrastructure facilities without any break from the farm gate to the consumer. It covers pre-cooling facilities at production sites, reefer vans, mobile cooling units as well as value addition centres which include infrastructural facilities like Processing/Multi-line Processing/ Collection Centres etc. for horticulture, organic produce, marine, dairy, meat and poultry etc.

Pattern of Assistance: Financial assistance (grant-in-aid) of 35% the total cost of plant and machinery and technical civil works in general areas and 50% for NE region and difficult areas (for storage) and financial assistance (grant-in-aid) of 50% the total cost of plant and machinery and technical civil works in general areas and 75% for NE region and difficult areas (for processing) subject to a maximum of USD 1.5 million.

Eligibility criteria:

- The net worth of the applicant should be at least 1.5 times of the grant applied for.
- Availing term loan from the Bank/Financial Institution for a minimum of 20% of the total project cost.
- Date of commercial production should not be prior to the date of submission of application.

Eligible Components:

Minimum of two components as stated below need to be set-up in order to qualify for the scheme. Irradiation Facility is treated on a stand-alone basis.

i. MPC/ Farm Level Infra:

- Facility for weighing, sorting, grading, waxing, packing, pre-cooling.
- Controlled Atmosphere (CA)/ Modified Atmosphere (MA) cold storage.
- Normal storage.
- Individual Quick Freezing (IQF).

ii. Reefer Transport

- Mobile Pre-cooling trucks and reefer trucks which are suitable for transportation of perishable agricultural produce/ horticulture/ dairy/ meat/ fish produce.

iii. Distribution Hub

- Hubs with multi products and multi CA/MA chambers/cold storage/Variable Humidity Chambers.
- Packing facility.
- Cleaning in Process (CIP) Fog treatment.
- Individual Quick Freezing (IQF).
- Blast freezing.

Exclusions: cost of land, preoperative expenses, margin money for working capital and contingency

Eligible Implementing Agencies under the scheme : Organization such as Central and State PSU /Joint Ventures /Farmer Producer Organization /NGO/cooperative /SHG's /Corporate entity/ proprietorship firms engaged or proposed to engage in creation /expansion /modernization of food processing and preservation capacities would be eligible under the scheme.

2.3. Scheme for Creation of Backward and Forward Linkages

The objective of the scheme is to provide effective and seamless backward and forward integration for processed food industry by plugging the gaps in supply chain in terms of availability of raw material and linkages with the market. Under the scheme, financial assistance is provided for setting up of primary processing centers/ collection centers at farm gate and modern retail outlets at the front end along with connectivity through insulated/ refrigerated transport.

Pattern of Assistance: The maximum admissible grant for each project would be 35% and 50% of the eligible project cost for general areas and for North East States, Himalayan States, ITDP Areas and Islands respectively subject to maximum of Rs 5 crore per project. Assistance to Farmer Producer Organizations would be provided @35% and 50% for general areas and difficult areas respectively.

Eligible Components:

Following are the eligible components and facilities for which assistance may be availed.

Backward Linkage:

- Integrated Pack-house(s) (with mechanized sorting and grading line/ packing line/ waxing line/ staging cold rooms, etc.)
- Milk Chilling Centers/ Bulk Milk Coolers
- Pre Cooling Unit(s)
- Mobile pre-cooling Vans
- Reefer boats

Forward Linkage:

- Ripening Chamber(s)
- Retail chain of outlets for perishables including Meat Shops with facilities such as frozen storage/deep freezers/ refrigerated display cabinets/cold room.
- Retail refrigerated carts, temperature controlled solar powered retail carts.

Transport : Refrigerated/ Insulated transport / Reefer Vans

Eligible Implementing Agencies under the Scheme:

- Promoters of existing food processing units.
- Groups of producers such as Co-operatives, Farmer Producer Organizations (FPOs), Farmer Producer Companies (FPCs), Self Help Groups (SHGs) etc. linked to food processing units.
- Retailers of processed food.
- Logistics Suppliers.

*The applicants in the above categories maybe organizations such as Central and State PSUs / Joint Ventures /Farmer Producers Organization (FPOs)/ NGOs / Cooperatives / SHGs / Public and Private Companies / Limited Liability Partnerships, Corporate Entity /Proprietorship Firms / Partnership Firms etc.

2.4. Scheme for Creation /Expansion of Food Processing and Preservation Capacities

The main objective of the scheme is creation of processing and preservation capacities and modernization/ expansion of existing food processing units with a view of increasing the level of processing, value addition leading to reduction of wastage. The setting up of new units and modernization/ expansion of existing units are covered under the scheme. The processing units undertake a wide range of processing activities depending on the processing sectors which results in value addition and/ or enhancing shelf life of the processed products.

Pattern of Assistance:

- 35% of the eligible project cost which is maximum of USD 0.75 million for general area.
- 50% of the eligible project cost which is maximum of USD 0.75 million for North East States including Sikkim, Himalayan States, Island area and ITDP Areas.

Eligibility criteria:

- Promoter's capital/equity investment on the project should not be less than 20 % of total Project Cost (not applicable for Govt. proposals)
- Proposal should have Minimum eligible project cost more than Rs. 3.00 Crore.
- Date of commercial production should not be prior to the date of submission of application.
- Only those proposals will be eligible in which sanction of term loan has been accorded by Bank / FI.

Eligible Organizations:

- Organization such as Central and State PSU /Joint Ventures /Farmer Producer Organization /NGO/cooperative /SHG's /Corporate entity/ Proprietorship firms engaged or proposed to engage in creation /expansion / modernization of food processing and preservation capacities would be eligible under the scheme.
- Rice Milling facility is only eligible for Eastern and North Eastern State

Preference to the proposals:

- Allocation of Food processing unit shall be done on the basis of state-wise allocation.
- The proposals for creation/expansion/ modernization of Food Processing and Preservation unit in Mega Food Parks assisted by the Ministry will be given preference within the state.

Contact:

Ministry of Food Processing Industries

Panchsheel Bhawan, August Kranti Marg

Khelgaon, New Delhi-110049

Fax No. 011-26493228

EPBAX No. 011-26492216/ 26492174/ 26493227/ 26490933

2.5. Scheme for Infrastructure for Agro-processing Cluster

The scheme aims at development of modern infrastructure and common facilities to encourage group of entrepreneurs to set up food processing units based on cluster approach. Under the scheme, effective backward and forward linkages are created by linking groups of producers/ farmers to the processors and markets through well-equipped supply chain consisting of modern infrastructure for food processing closer to production areas and provision of integrated/ complete preservation infrastructure facilities from the farm gate to the consumer.

Pattern of Assistance: The scheme envisages grant-in-aid @ 35% of eligible project cost in general areas and @50% of eligible project cost in hilly / ITDP and difficult areas subject to max. of USD 1.5 million. per project.

Eligibility criteria

- The combined net worth of the promoters/proposed shareholders of IAs should not be less than 1.5 times of the grant amount sought.
- The IAs needs to bring in at least 20 % of the total project cost as equity / contribution in general areas and at least 10 % of the total project cost in difficult and hilly areas.
- Minimum land area - 10 acres. Minimum of 5 Food Processing units of 25 crores cumulative to be set up.

Exclusions:

- The eligible project cost will exclude cost of land, pre-operative expenses and margin money for working capital.
- Promoters of Mega Food Parks are not eligible

Eligible Implementing Agencies under the Scheme: All implementing agencies / organizations such as Govt. / PSUs / Joint Ventures / NGOs / Cooperatives / SHGs / Private Sector / individuals etc. will be eligible.

Contact:

Ministry of Food Processing Industries

Panchsheel Bhawan, August Kranti Marg

Khelgaon, New Delhi-110049

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CHAPTER 3

OTHER SCHEMES OF THE GOVERNMENT OF INDIA

Highlights

Prime Minister's Employment Generation Programme (PMEGP): It aims to generate employment opportunities in rural as well as urban areas of the country through setting up of new self-employment ventures/projects/micro enterprises. It is a central scheme administered by the Ministry of Micro, Small and Medium Enterprises (MoMSME).

Credit Guarantee Fund Scheme for Micro and Small Enterprises: It aims to make available collateral-free credit to the micro and small enterprise sector. Both existing and new enterprises including FPCs are eligible to be covered under the scheme.

Mudra Loan Scheme: It aims at providing loan for income generating small business activities in manufacturing, processing, service sector or trading. The Project cost is decided based on business plan and the investment proposed. MUDRA loan is not for consumption / personal expenses.

Agri-Clinics and Agri-Business Centre (ACABC) Scheme: Agri-Clinics are envisaged to provide expert advice and services to farmers on various technologies including soil health, cropping practices, plant protection, crop insurance, post-harvest technology and clinical services.

Scheme of Fund for Regeneration of Traditional Industries: The main objective of the SFURTI is to organize the traditional industries and artisans into clusters to make them competitive and provide support for their long term sustainability and economy of scale and to provide sustained employment for traditional industry artisans and rural entrepreneurs.

Micro and Small Enterprises - Cluster Development Programme (MSE-CDP): It aims to support the sustainability and growth of MSEs by addressing common issues such as improvement of technology, skills and quality, market access and access to capital and to build capacity of MSEs for common supportive action through formation of self-help groups, consortia, upgradation of associations, etc.

3.1. Prime Minister's Employment Generation Programme (PMEGP)

Introduction

Government of India has approved the introduction of a new credit linked subsidy programme called Prime Minister's Employment Generation Programme (PMEGP) by merging the two schemes that were in operation till 31.03.2008 namely Prime Minister's Rojgar Yojana (PMRY) and Rural Employment Generation Programme (REGP) for generation of employment opportunities through establishment of micro enterprises in rural as well as urban areas. PMEGP will be a central sector scheme to be administered by the Ministry of Micro, Small and Medium Enterprises (MoMSME).

Objectives

- i. To generate employment opportunities in rural as well as urban areas of the country through setting up of new self-employment ventures/projects/micro enterprises.
- ii. To bring together widely dispersed traditional artisans/ rural and urban unemployed youth and give them self-employment opportunities to the extent possible, at their place.
- iii. To provide continuous and sustainable employment to a large segment of traditional and prospective artisans and rural and urban unemployed youth in the country, so as to help arrest migration of rural youth to urban areas.
- iv. To increase the wage earning capacity of artisans and contribute to increase in the growth rate of rural and urban employment.

Quantum and Nature of Financial Assistance

Levels of funding under PMEGP

Table 47 : Levels of funding under PMEGP

Categories of beneficiaries under PMEGP	Beneficiary's contribution (of project cost)	Rate of Subsidy (of project cost)	
		Urban	Rural
General Category	10%	15%	25%
Special (including SC / ST / OBC / Minorities/Women, Ex-servicemen, Physically handicapped, NER, Hill and Border areas etc.	5%	25%	35%

Note:

1. The maximum cost of the project/unit admissible under manufacturing sector is Rs. 25 Lakh.
2. The maximum cost of the project/unit admissible under business/service sector is Rs. 10 Lakh.
3. The balance amount of the total project cost will be provided by Banks as term loan.

Contact:

State Director, KVIC

Address available at <http://www.kviconline.gov.in>

Dy. CEO (PMEGP), KVIC, Mumbai

Contact no : 022-26714370

Email: dyceoksr@gmail.com

Please see <http://www.kviconline.gov.in> for further details.

3.2. Credit Guarantee Fund Scheme for Micro and Small Enterprises

Introduction

The Credit Guarantee Fund Scheme for Micro and Small Enterprises (CGS) was launched by the Government of India (GoI) to make available collateral-free credit to the micro and small enterprise sector. Both the existing and new enterprises, including FPCs are eligible to be covered under the scheme. The Ministry of Micro, Small and Medium Enterprises, GoI and Small Industries Development Bank of India (SIDBI), established a Trust named Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) to implement the Credit Guarantee Fund Scheme for Micro and Small Enterprises.

Eligible Lending Institutions

The Banks and Financial Institutions, which are eligible under the scheme, are scheduled commercial banks (Public Sector Banks/Private Sector Banks/Foreign Banks) and select regional rural Banks (which have been classified under 'Sustainable Viable' category by NABARD), Private Sector Banks, 73 Regional Rural Banks (RRBs), 4 Foreign Banks and 9 other institutions i.e. Delhi Financial Corporation, Kerala Financial Corporation, Jammu and Kashmir Development Finance Corporation Ltd, Andhra Pradesh State Financial Corporation, Export Import Bank of India, The Tamil Nadu Industrial Investment Corporation Ltd., National Small Industries Corporation (NSIC), North Eastern Development Finance Corporation (NEDFI) and Small Industries Development Bank of India (SIDBI).

Eligible Credit Facility

The credit facilities which are eligible to be covered under the scheme are both term loans and/or working capital facility up to Rs.100 Lakh per borrowing unit, extended without any collateral security and/or third party guarantee, to a new or existing micro and small enterprise. For those units covered under the guarantee scheme, which may become sick owing to factors beyond the control of management, rehabilitation assistance extended by the lender could also be covered under the guarantee scheme. Any credit facility in respect of which risks are additionally covered under the scheme, operated by Government or other agencies, will not be eligible for coverage under the scheme.

Guarantee Cover

The guarantee cover available under the scheme is to the extent of maximum 85% of the sanctioned amount of the credit facility. The guarantee cover provided is up to 75% of the credit facility up to Rs.50 Lakh (85% for loans up to Rs. 5 Lakh provided to micro enterprises, 80% for MSEs owned/operated by women and all loans to NER including Sikkim) with a uniform guarantee at 50% for the entire amount if the credit exposure is above Rs.50 Lakh and up to Rs.100 Lakh. In case of default, the Trust settles the claim up to 75% (or 85% / 80% / 50% wherever applicable) of the amount in default of the credit facility extended by the lending institution.

Tenure of Guarantee

The Guarantee cover under the scheme is for the agreed tenure of the term loan/composite credit. In case of working capital, the guarantee cover is of 5 years or block of 5 years.

Fee for Guarantee

A composite all-in Annual Guarantee Fee of 1.0 % p.a. of the credit facility sanctioned (0.75% for credit facility up to Rs. 5 Lakh and 0.85% for above Rs. 5 Lakh and up to 100 Lakh for Women, Micro Enterprises and units in NER including Sikkim) is now being charged.

Contact:

Sh. Piyush Srivastava (ADC), Ministry of MSME

Email Id: adc1@dcmsme.gov.in

Contact No: 23062694

3.3. Mudra Loan Scheme

Brief details of the Product

MUDRA loans are extended by banks, NBFCs, MFIs and other eligible financial intermediaries as notified by MUDRA Ltd. The Pradhan Mantri MUDRA Yojana (PMMY) announced by the Hon'ble Prime Minister on 8th April 2015,

envisages providing MUDRA loan, upto Rs. 10 Lakh to income generating micro enterprises engaged in manufacturing, trading and services sector.

The overdraft amount of Rs.5000 sanctioned under PMJDY has been also classified as MUDRA loans under Prime Minister MUDRA Yojana (PMMY).

The MUDRA loan is extended under following three categories:

- Loans upto Rs. 50,000/- (Shishu)
- Loans from Rs. 50,001/- to Rs.5 Lakh (Kishore)
- Loans from Rs.5,00,001/- to Rs.10 Lakh (Tarun)

Eligible borrowers: Individuals, Proprietary concern, Partnership Firm, Private Ltd. Company; Public Company and any other legal forms.

Purpose of Assistance/ Nature of Assistance

The MUDRA loans are provided for income generating small business activity in manufacturing, processing, service sector or trading. The Project cost is decided based on business plan and the investment proposed. MUDRA loan is not for consumption/personal needs.

For the purpose of working capital limit, MUDRA has launched a new product called “MUDRA Card”, which is a debit card issued on RuPay platform, and provides hassle free credit in a flexible manner.

Amount of assistance

Up to Rs. 10 Lakh in three categories viz. Shishu, Kishore and Tarun.

Interest rate

Interest rates are to be charged as per the policy decision of the bank.

Upfront fee/Processing charges.

Banks may consider charging of upfront fee as per their internal guidelines

Security

First charge on all assets created out of the loan extended to the borrower and the assets which are directly associated with the business/project for which credit has been extended; DPN (wherever applicable); CGTMSE (wherever felt desirable)/MUDRA Guarantee cover (as and when introduced).

In terms of RBI guidelines issued vide Master Circular on lending to MSME, in respect of loans upto Rs.10 Lakh, banks are mandated not to accept collateral security in the case of loans upto Rs.10 Lakh extended to units in the Micro Small Enterprises (MSE) Sector.

Tenure of Assistance

Tenure of assistance based on the economic life of the assets created and also the cash flow generated. However, MUDRA's refinance assistance will be for a maximum tenure of 36 months which will also be aligned to terms of allotment of MUDRA funds by RBI from time to time.

Repayment

Term Loan : To be repaid in suitable instalments with suitable moratorium period as per cash flow of the business.

OD and CC Limit : Repayable on demand. Renewal and Annual Review as per internal guidelines of the Bank.

Contact:

Toll Free Number: 1800 180 1111, 1800 11 0001

Mudra Bank Helpdesk E-mail: help@mudra.org.in

Office Contact number: 011-23748765

Mission Contact Email id: missionmudra-dfs@nic.in

Mudra bank loan Customer support Email Id: help@mudra.org.in

3.4. Agri-Clinics and Agri-Business Centres (ACABC) Scheme

Agri-Clinics are envisaged to provide expert advice and services to farmers on various technologies including soil health, cropping practices, plant protection, crop insurance, post-harvest technology and clinical services.

Agri-Business Centres are commercial units of agri-ventures established by trained agriculture professionals. Such ventures may include maintenance and custom hiring of farm equipment, sale of inputs and other services in agriculture and allied areas, including post-harvest management and market linkages for income generation and entrepreneurship development.

Revised Training Cost

The revised training cost per trainee is limited to Rs. 35,000 per trainee. An additional amount of 10% of approved charges on food, accommodation, honorarium, training expenditure and handholding charges has been provided for North-Eastern States and Hill States (J&K, Uttarakhand and Himachal Pradesh).

Release of Handholding Fund

Half of the handholding amount i.e. Rs. 2500 per trained candidate shall be released to the NTI on receipt of list of projects submitted to bank (for candidates who intend to establish the venture with bank finance) along with proof of submission. Remaining 50% of the handholding amount i.e. Rs. 2500 per established candidate shall be released to NTI on receipt of proof for Agri-Venture establishment.

Incentives to Candidates and NTIs

NTIs with cumulative and respective batch success rate of more than 50 % are eligible to get an additional incentive of Rs.2000 per candidate for every candidate established after 50% success rate, reported in respective batch.

Every candidate who establishes his/her venture and submits proof to that effect is eligible to receive an incentive of Rs.1000.

Credit Support

Linkage with Credit

Assistance under the scheme would be purely credit linked and subject to sanction of the project by banks based on economic viability and commercial considerations. The eligible financial institutions under the scheme are: Commercial Banks, Regional Rural Banks, State Cooperative Banks, State Cooperative Agriculture and Rural Development Banks and Such other institutions eligible for refinance from NABARD.

Project Cost Ceiling

Ceiling of project cost for subsidy has been enhanced to Rs. 20 Lakh for an individual project (Rs. 25 Lakh in case of extremely successful individual projects) and up to Rs. 100 Lakh for a group project (Established by a group comprising at least 5 trained persons under the scheme, out of which one could be from Management background). The bank may, nevertheless, subject to their own satisfaction, finance groups formed by 2 or more trained persons under the scheme (Person with management background can only be included in groups of 5 or more) with in the TFO ceiling Rs. 20 Lakh per trained person and overall ceiling of Rs. 100 Lakh, whichever is less for the purpose of subsidy. However, the actual credit sanctioned by the bank for a venture established under the scheme could be higher depending on the financial viability and technical feasibility. Thus, for instance, if an individual is granted a loan for TFO of Rs. 35 Lakh, subsidy shall be reckoned only on TFO of Rs. 20 Lakh. To encourage exceptionally successful individual agri-preneurs, the project cost limit for subsidy purposes may be extended by Rs. 5 Lakh in addition to the generally applicable project cost limit of Rs. 20 Lakh for calculating subsidy. This will serve as an incentive to an agri-preneur to expand his/her already established and successful venture.

Change of Capital and Interest Subsidy to Composite Subsidy

Subsidy pattern has been revised from “Capital and Interest Subsidy” to “Composite Subsidy” which will be back-ended in nature. It will be 44% of project cost for women, SC/ST and all categories of candidates from NE and Hill states and 36% of project cost for all others. Interest subsidy scheme is replaced with enhanced quantum of back-ended subsidy.

Contact:

Mrs. V.Usha Rani, IAS

Director General - MANAGE

Dr. Saravanan Raj, Director (Agricultural Extension)

Email id - saravanan.raj@manage.gov.in

3.5. Scheme of Fund for Regeneration of Traditional Industries (SFURTI)

Introduction

The main objective of the SFURTI is to organize the traditional industries and artisans into clusters to make them competitive and provide support for their long term sustainability and economy of scale and to provide sustained employment for traditional industry artisans and rural entrepreneurs.

Soft Interventions

Soft Interventions under the project would consist of activities like general awareness, counselling, trust building, skill development and capacity building/for the entire value chain, different skills need to be imparted such as Institution development, Exposure visits, Market promotion initiatives, Design and product development, Participation in seminars, workshops and training programmes on technology upgradation, etc.

Hard Interventions

Hard interventions will include creation of following facilities like multiple facilities for multiple products and packaging wherever needed; Common Facility Centres (CFCs); Raw material banks (RMBs); Up-gradation of production infrastructure; Tools and technological up-gradation such as charkha up-gradation, toolkit distribution, Warehousing facility; Training centre, Value addition and processing centre/multi-products.

Thematic interventions

Thematic Intervention such as Brand building and promotion campaign, New media marketing, e-Commerce initiatives, Innovation, Research and development initiatives, developing institutional linkages with the existing and proposed clusters will be included.

The financial assistance provided for any specific project shall be subject to a maximum of Rs 8 (eight) crore:

Table 48 Types of clusters

Types of Clusters	Per cluster budget limit
Heritage Clusters (1000-2500 artisans)	Rs 8.00 Crore
Major Clusters (500-1000 artisans)	Rs 3.00 Crore
Mini Clusters (Upto 500 artisans)	Rs 1.50 Crore

Table 49 The funding pattern under the Scheme will be as under:

Sr.No	Project Intervention	Scheme Funding	Financial Limit	IA Share
A	Cluster Interventions	-		-
A1	Soft Interventions including skill trainings, capacity building, design development	100%	Subject to a maximum 33% of A (Total cost of cluster intervention both hard and soft interventions) or Rs 25 Lakh whichever is less.	NIL
A2	Hard intervention including CFCs, RMBs, training centres, etc.	75%	-	25% of project Cost including Land Cost and own contribution as equity
B	Cost of TA	100%	8% of A1+A2 (Total cost of Cluster Interventions both hard and soft interventions)	NIL
C	Cost of IA/SPV including CDE	100%	Maximum Rs 20 Lakh per project	NIL

Contact:

Web Information Manager

Ministry of Micro, Small and Medium Enterprises

Room No 123, Udyog Bhawan, Rafi Marg, New Delhi - 110011

Phone No : 011-23061431

e-mail : www.msme.gov.in

3.6. Micro and Small Enterprises - Cluster Development Programme (MSE-CDP)

The Ministry of Micro, Small and Medium Enterprises (MSME), Government of India (GoI) has adopted the Cluster Development approach as a key strategy for enhancing the productivity and competitiveness as well as capacity build-

ing of Micro and Small Enterprises (MSEs) and their collectives in the country. A cluster is a group of enterprises located within an identifiable and as far as practicable, contiguous area producing same/similar products/services. The essential characteristics of enterprises in a cluster are (a) Similarity or complementarity in the methods of production, quality control and testing, energy consumption, pollution control etc. (b) Similar level of technology and marketing strategies/practices (c) Similar channels for communication among the members of the cluster (d) Common challenges and opportunities.

Objectives of the Scheme:

- (i) To support the sustainability and growth of MSEs by addressing common issues such as improvement of technology, skills and quality, market access, access to capital etc.
- ii) To build capacity of MSEs for common supportive action through formation of self-help groups, consortia, upgradation of associations etc.
- (iii) To create/upgrade infrastructural facilities in the new/existing industrial areas/ clusters of MSEs including setting up of Flatted Factory Complexes.
- (iv) To set up common facility centres (for testing, training centre, raw material depot, effluent treatment, complementing production processes, etc.)

Components:

- (i) **Setting up of CFCs:** Creation of tangible “assets” as Common Facility Centres (CFCs) like Common Production/Processing Centre (for balancing/correcting/improving production line that cannot be undertaken by individual units), Design Centres, Testing Facilities, Training Centre, RandD Centres, Effluent Treatment Plant, Marketing Display/Selling Centre, Common Logistics Centre, Common Raw Material Bank/Sales Depot, etc. The GoI grant will be restricted to 70% of the cost of project of maximum Rs 15.00 crore. GoI grant will be 90% for CFCs in NE and Hill States, Clusters with more than 50% (a) micro/ village (b) women owned (c) SC/ST units.
- (ii) **Infrastructure Development:** Consist of projects for infrastructural facilities like power distribution network, water, telecommunication, drainage and pollution control facilities, roads, banks, raw materials storage and marketing outlets, common service facilities and technological backup services for MSEs in the new/ existing industrial estates/areas. The GoI grant will be restricted to 60% of the cost of project of Rs 10.00 crore. GoI grant will be 80% for projects in NE and Hill States, industrial areas/ estates with more than 50% (a) micro (b) women owned (c) SC/ST units.

Contact:

Sh. R.K.Rai (Director),

Email Id : rk.rai@nic.in,

Contact No: 23062561

Website: www.cluster.dcmsme.gov.in

3.7. Development of Commercial Horticulture through Production and Post-Harvest Management of Horticulture Crops – by NHB

Credit linked projects relating to establishment of commercial production units in open field as well as under protected conditions and projects on Post Harvest Management and primary processing of products are eligible for assistance

under this scheme as per cost norms given in the detailed scheme. However, release of subsidy need not be credit linked in North Eastern States and for the institutions like Public Sector Units, Panchayats, Cooperatives, Registered Societies/Trust and Public Limited Companies provided they can meet remaining share of the project cost out of their own resources. Such projects will have to be appraised by appraising agency approved by NHB.

Description of components and Pattern of Assistance

1.1 Commercial Horticulture Development in open field conditions on project mode, National Horticulture Board will take up integrated commercial horticulture development projects in open field conditions on project mode, including components viz. planting material, plantation, irrigation, fertigation, mechanization, precision farming, GAP etc. for projects covering area over 2.00 ha. (5 Acres) Integration of production unit with on farm PHM components and primary processing unit shall also be allowed in project mode. Cost of raising new plantation will vary from crop to crop, which will be taken into consideration while providing assistance to the beneficiary. Integrated production unit on Mushroom and tissue culture shall also be eligible for assistance under this component. The components like farm machinery and PHM infrastructure, irrigation and micro irrigation etc. shall be eligible under the scheme for assistance in existing/new orchards/projects to increase productivity.

Eligibility Criteria:

A natural person, a group of individuals or a legal person (Partnership Firm, a Trust, Cooperative Society, a Society registered under Registration of Society Act, a Company, Self-Help Group, Farmer Producers Organization, Co-operative Marketing Federations, Agricultural Produce Marketing Committees, Marketing Boards/Committees, Municipal Corporations/ Committees, Agro-Industries Corporations may apply for assistance.

Pattern of assistance

Credit linked back-ended subsidy @ 40% of the total project cost limited to Rs 30.00 lakh per project in general areas and @ 50% of project cost limited to Rs. 37.50 lakh in NE Region, Hilly and Scheduled areas.

1.2 Commercial Horticulture Development in protected cover on project mode the Board will also take up commercial horticulture development projects under protected cover on project mode including components viz. planting material, plantation, irrigation, fertigation, mechanization, etc. for projects having area over 2500 sq. meter. Activities like construction of green houses, shed net house, plastic mulching, and plastic tunnel, anti-bird /hail nets etc. would be promoted. Provision has been made for selecting a variety of construction material for green houses and shed nets houses. Preference will be given to using locally available material to minimize cost of construction of such structures. However, for availing subsidy, all material /technology should conform to prescribed standards.

Pattern of assistance

Credit linked back-ended subsidy @ 50% of the total project cost limited to Rs 56.00 lakh per project as per admissible cost norms for green houses, shed net house, plastic tunnel, anti-bird /hail nets and cost of planting material etc.

1.3 Integrated Post Harvest Management projects the Board will take up Integrated Post Harvest Management projects relating to Pack House, Ripening Chamber, Refer Van, Retail Outlets, Pre-cooling unit, Primary processing etc. NHB will also take up projects in component mode and for standalone projects of PHM components.

Pattern of assistance

Credit linked back-ended subsidy @ 35% of the total project cost limited to Rs 50.75 lakh per project in general area and @ 50 % of project cost limited to Rs. 72.50 lakh per project in NE, Hilly and Scheduled areas.

General conditions

- i. Credit component as means of finance of the project should be term loan from banking or non-banking financial institutions. For credit linked projects under NHB, eligible subsidy amount to be capped at par with term loan sanctioned by the lending Banks/FI.
- ii. Normative cost of various components shall be prescribed by NHB.
- iii. Benefit of exclusive components of cold storage scheme shall also be available to the promoters over and above the assistance that will be provided under Commercial Horticulture Scheme to set up integrated projects for production and PHM components.
- iv. Projects relating to setting up of new units shall be technically and financially appraised to ensure and enable entrepreneur to incorporate latest available technology.
- v. Assistance can also be availed for a combination of PHM infrastructure components by a beneficiary, within the prescribed norms of individual items.

Contact:

National Horticulture Board

MCAER Building 132/B, Bhambhurda Bhosale Nagar,

Pune-411 007

Contact No: /Fax: 020-25530582-83

Email:nhbpune@gmail.com

3.8. Capital Investment subsidy scheme for construction/expansion/modernization of cold storage and storages for Horticulture Products – by NHB

Description of components and Pattern of Assistance

Components : Credit linked projects relating to Cold Storages including Controlled Atmosphere (CA) and their modernization are eligible for assistance under this component. Subsidy need not be credit linked for the institutions like Public Sector Units, Panchayats, Cooperatives, Registered Societies/Trust and Public limited companies provided they can meet remaining share of the project cost out of their own resources. Such projects will have to be appraised by appraising agency approved by NHB.

Eligibility Criteria:

A natural person, a group of individuals or a legal person (Partnership Firm, a Trust, Cooperative Society, a Society registered under Registration of Society Act, a Company, Self-Help Group, Farmer Producers Organization, Co-operative Marketing Federations, Agricultural Produce Marketing Committees, Marketing Boards/Committees, Municipal Corporations/ Committees, Agro-Industries Corporations may apply for assistance.

Pattern of Assistance:

The assistance will be given as subsidy @ 35% of the capital cost of project in general areas and 50% in case of NE, Hilly and scheduled areas for a storage capacity above 5000 MT up to 10000 MT.

Calculation of Capacity for subsidy:

For calculation of capacity, 3.4 cubic meters (cm.) (120 cubic feet (cft.) of chamber volume shall be considered equivalent to 1 MT storage capacity.

Table 50 : Description of components and Cost Norms

S. No.	Description	Cost Norms
1	Cold storage units Type 1 – basic mezzanine structure with large chamber (of > 250 MT) type with single temperature zone.	<ul style="list-style-type: none"> • @ Rs. 8000/ MT for capacity upto 5000 MT • @ Rs. 7600/ MT for capacity between 5001 to 6500 MT. • @ Rs. 7200/MT for capacity between 6501 to 8000 MT. • @ Rs. 6800/MT for capacity between 8001 to 10000 MT.
2	Cold storage units Type 2 – Pre Engineering Building (PEB) Type for multiple temperature and product use , more than 6 chambers of <250 MT) and basic material handling equipment	<ul style="list-style-type: none"> • @ Rs.10000/ MT for capacity upto 5000 MT • @ Rs. 9500/ MT for capacity between 5001 to 6500 MT. • @ Rs. 9000/MT for capacity between 6501 to 8000 MT. • @ Rs. 8500/MT for capacity between 8001 to 10000 MT
3	Cold Storage Units Type 2 with add on technology for Controlled Atmosphere	Additional Rs. 10,000/MT for add on components of controlled atmosphere technology as per component wise cost (As per detailed guidelines)
4	Technology induction and modernization of cold-chain	<ul style="list-style-type: none"> • @ Rs. 5000/MT for capacity between 5001 to 10000 MT. • Components of modernization includes PLC equipment, packaging lines, dock levelers, advanced graders, alternate technologies, stacking system, modernization of insulation and refrigeration etc. Details are in complete guidelines.

General conditions for cold storage projects

For credit linked projects, credit components as means of finance of the project should be term loan from banking or non-banking financial institutions. For credit linked projects under NHB, eligible subsidy amount to be capped at par with term loan sanctioned by the lending Banks/Fl.

Contact:

National Horticulture Board

MCAER Building 132/B, Bhambhurda Bhosale Nagar,

Pune-411 007

Contact No/ Fax 020-25530582-83

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3.9. Venture Capital Assistance Scheme for Agribusiness Development- by SFAC

Description and Pattern of Assistance

SFAC would provide venture capital to agribusiness projects by way of soft loan to supplement the financial gap worked out by the sanctioning authority of term loan under means of finance with respect to cost of project subject to the fulfilment of the following conditions:

(a) Qualifying projects under Venture Capital:

- i. Project should be in agriculture or allied sector or related to agricultural services. Poultry and dairy projects will also be covered under the Scheme.
- ii. Project should provide assured market to farmers'/producer groups.
- iii. Project should encourage farmers to diversify into high value crops to increase farm incomes.
- iv. Project should be accepted by Notified Financial Institution for grant of term loan.

(b) The quantum of SFAC Venture Capital Assistance will depend on the project cost and will be the lowest of the following:

- 26% of the promoter's equity
- 50.00 lakhs.

Provided that for projects located in North-Eastern Region, Hilly States (Uttarakhand, Himachal Pradesh, Jammu and Kashmir) and in all cases in any part of the country where the project is promoted by a registered Farmer Producers Organisation, the quantum of venture capital will be the lowest of the following:

- 40% of the promoter's equity
- 50.00 lakhs.

Eligible Persons

Assistance under the scheme will be available to Individuals, Farmers, Producer Groups, Partnership/Proprietary Firms, Self Help Groups, Companies, Agripreneurs, units in agri-export zones, and Agriculture graduates individually or in groups for setting up agribusiness projects. For professional management and accountability, the groups have to preferably form into companies or producer companies under the relevant Act.

Contact:

Small Farmers' Agri-Business Consortium

Head Office

NCUI Auditorium Building,

5th Floor, 3, Siri Institutional Area,

August Kranti Marg, Hauz Khas, New Delhi - 110016.

Contact No - 91-11- 41060075, 26966017, 26966037

Fax - +91-11- 26862367

Website: www.sfacindia.com

3.10. SFAC's Equity Grant Scheme for FPOs

Description

Equity Grant Scheme extends support to the equity base of Farmer Producer Companies (FPCs) by providing matching equity grants subject to maximum of Rs. 10.00 lakh per FPC in two tranches and to address nascent and emerging FPCs which have paid up capital not exceeding Rs. 30.00 lakh with a view to the undernoted primary objectives:

- a) Enhancing viability and sustainability of FPCs.
- b) Enhancing credit worthiness of FPCs.
- c) Enhancing the shareholding of members to increase their ownership and participation in their FPC.

Eligibility Criteria for FPCs

An FPC shall be eligible to apply for Equity Grant under the scheme based on its fulfilling the following criteria:

- i. It is a duly registered FPC
- ii. It has raised equity from its Members as laid down in its Articles of Association/ Bye laws.
- iii. The number of its Individual Shareholders is not less than 50.
- iv. The paid up equity does not exceed Rs.30 Lakh.
- v. Minimum 33% of the shareholders are small, marginal and landless tenant farmers as defined by the Agriculture Census carried out periodically by the Ministry of Agriculture, GoI.
- vi. Maximum shareholding by any one member other than an institutional member is not more than 5% of total equity of the FPC.
- vii. Maximum shareholding of an institutional member is not more than 10% of total equity of the FPC.
- viii. Duly elected Board of Directors (BoD) with a minimum of five members, with adequate representation from member farmers and minimum one-woman member.
- ix. Duly constituted Management Committee responsible for the business of the FPC.
- x. A business plan and budget for next 18 months that is based on a sustainable, revenue model as may be determined by the Implementing Agency.
- xi. The FPC has an Account with a "Nationalised Bank".
- xii. It has a Statement of Accounts audited by a Chartered Accountant (CA) for at least one full financial year.

Contact:

Small Farmers' Agri-Business Consortium
Head Office
NCUI Auditorium Building,
5th Floor, 3, Siri Institutional Area,
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Website: www.sfacindia.com

3.11. SFAC's Credit Guarantee Fund (CGF) for FPOs

Description

This Fund has been set up with the primary objective of providing a Credit Guarantee Cover to Eligible Lending Institutions (ELI) to enable them to provide collateral free credit to FPCs by minimizing their lending risks in respect of loans not exceeding Rs. 100.00 lakhs.

Eligibility Criteria for FPC

An ELI can avail Credit Guarantee for the following FPC:

- i. A duly registered FPC
- ii. It has raised equity from its Members as laid down in its Articles of Association/ Bye laws.
- iii. The number of its individual shareholders shall not be lower than 500
- iv. Minimum 33% of its shareholders are small, marginal and landless tenant farmers.
- v. Maximum shareholding by any one member other than an institutional member is not more than 5% of total equity of the FPC.
- vi. It has a duly elected/nominated Board with a minimum of five Members and having adequate representation from farmers and minimum one-woman member.
- vii. It has a duly elected Management Committee.
- viii. It has a business plan and budget for 18 months.
- ix. The Bank ELI has extended / sanctioned within six months of the date of application for the Guarantee or / in principle agreed in writing / has expressed willingness in writing to sanction Term Loan/ Working Capital/ Composite Credit Facility without any collateral security or third party guarantee including personal guarantee of Board Members.

Contact:

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CHAPTER 4

AGRICULTURE AND FOOD PROCESSING RELATED SCHEMES OF MAHARASHTRA

Highlights

Soil Health, Soil Conservation and Fertilizers: This includes various schemes like ISOPOM, National Horticulture Mission, Work plan Organic Farming Scheme, Soil Survey and Soil Testing Scheme (State Govt.), National Project on Organic Farming, National Project on Soil Health and Fertility and centrally sponsored Sugarcane Development Scheme.

Seeds related Schemes: This includes National Food Security Mission, Cotton Technology Mission, Seed Village Programme under the Assistance of Distribution of Certified Seeds and Seed Treatment Subsidy, Demonstration inputs, Development and strengthening of infrastructure for Production and Distribution of Quality Seed under Assistance of production of foundation or certified seeds and National Food Security Mission, Seed Village Programming, Certified Seed Production and Initiative for Nutritional Security through Intensive Millets Promotion (INSIMP) under Seed Mini kits of high yielding varieties.

Irrigation Related Schemes: Under this scheme National Micro Irrigation Mission provides assistance in procurement of drip/sprinkler irrigation system limited up to 5 hectares and Programme of Integrated Development of 60,000 Pulses Villages in Rain fed Areas which guarantees lining in old farm ponds to reduce the percolation losses.

Agricultural Credit: Under this scheme farmer can avail crop loans through the Kisan credit card. Loan/credit limit is decided on the basis of 3-5 years average of crop sown on cultivable land by farmers.

Agricultural Insurance: National Agriculture Insurance Scheme (NAIS) includes insurance protection for notified crops, oilseeds, annual horticultural / commercial crops and for coconut palm growers.

Plant Protection: This scheme supports fungicides for seed treatment, pesticides, biocontrol agents, NPV(virus), organic pesticide, pheromone tap etc. for pulse production.

Horticulture: Bee-keeping subsidy for pollination support (maximum 50 colonies /beneficiary), honey bee colony, bee hives, green house which has pad and fan system.

Agricultural Marketing, Maharashtra: This scheme includes Grameen Bhandaran Yojana which has a godown capacity from 100 Mtr to 30,000 Mtr and Scheme for Development / Strengthening of Agricultural Marketing Infrastructure, Grading and Standardization for rapid development of infrastructure projects in agriculture and allied sectors including dairy, meat, fisheries and minor forest produce and Intensive for nutritional security through intensive Millets promotion (INSIMP) which includes awareness and food festival for each district with an assistance of Rs 1 Lakh/food festival.

The Maharashtra State Agriculture Marketing Board (MSAMB): This institution plays a critical role in Agri markets to undertake State level planning for the development of the agriculture produce markets. To supervise and guide the Market Committees in the preparation of plans and estimates of infrastructure programmes, to arrange or organize seminars, workshops, exhibitions on subject relating to agricultural marketing. To enable training to members and employees of the marketing committee.

4.1. Soil Health, Soil Conservation and Fertilizers –Maharashtra

A) ISOPOM

ISOPOM guarantees supply of Gypsum/Pyrite/Lime/Dolomite at Rs. 750 per hectare while that of micronutrient elements in deficient areas at Rs. 500 per hectare.

B) National Horticulture Mission/Horticulture Mission for North –Eastern and the Himalayan States

This scheme facilitates setting up to organic farming at Rs10,000 per hectare while that for setting up Vermi-Compost Unit at Rs 30,000 per unit (for 1-hectare area).

C) Work plan Organic Farming Scheme

This scheme provides assistance in setting up Vermi Compost Unit at Rs 2500 per unit, Biodynamic Compost at Rs. 250 per unit and C.P.P. Culture Unit at Rs 250 per unit.

D) Soil Survey and Soil Testing Scheme (State Govt.)

This scheme facilitates testing of soil samples of NPK at Rs 15/- per sample.

E) National Project on Organic Farming

This scheme provides establishment of compost unit from fruit and vegetables waste/ agricultural waste at subsidy of 33% on total financial outlay for 100 TPD (tonnes per day) capacity up to a limit of Rs. 60 Lakh (credit linked back ended subsidy)

F) National Project on Soil Health and Fertility

The scheme guarantees setting up additional soil testing labs by agri clinics /NGOs /cooperatives /private entrepreneurs etc. under the Public Private Partnership for setting up of mobile soil testing labs by agri clinic/NGOs/cooperatives/private entrepreneurs etc. 50% project cost limited to maximum of Rs.30 lakh as one-time subsidy.

G) Centrally sponsored Sugarcane development scheme

This scheme involves distribution of Gypsum, green manure and micronutrients at 50% of the cost limited to Rs. 1000/ha.

4.2. Seed related Schemes

Assistance on Distribution of Certified Seeds

A) National Food Security Mission

The scheme provides assistance on distribution for all pulses (Arhar, Moong, Urad, Lentil, Pea Gram, Rajma and Moth) at 50% of cost or Rs 12 per kg. (whichever is less)

B) Cotton Technology Mission

This scheme facilitates assistance on distribution of certifies seeds of cotton at Rs 20.

C) Seed Village Programme

The scheme is for all crops and facilitates distribution of foundation/certified seeds for production of quality seeds to improve quality of farm saved seeds.

D) Assistance on production of foundation for certified seeds

i) Seed Treatment Subsidy

State Govt of Maharashtra provides 25% subsidy limited to Rs 50/- ha.on seed treatment.

ii) Demonstration inputs

State Govt of Maharashtra provides demonstration inputs upto Rs 5000/ha

iii) Development and strengthening of infrastructure for Production and Distribution of Quality Seed

Government of Maharashtra provides assistance for boosting seed production in private sector including individual/entrepreneurs, self-help groups etc. to credit linked back ended capital subsidy at the rate of 25% of project cost limited to Rs 25 lakh per unit.

E) Seed Mini kits of high yielding varieties

i) National Food Security Mission National

Food Security Mission provides subsidy for paddy, wheat mini kits and all pulses (Arhar, Moong, Urad, Lentil, Pea, Gram, Rajma and Moth)

ii) Seed Village Programming

Seed Village Programming provides assistance for training on seed production and seed technology for a group of 50 to 150 farmers at the rate of Rs 15,000 per training (for three-day training day training)

iii) Certified Seed Production

The scheme provides centrally sponsored Sustainable Development of Sugarcane based cropping system

iv) Intensive for Nutritional Security through Intensive Millets Promotion (INSIMP)

The scheme provides seed production of hybrid varieties and seed production of improved varieties.

4.3. Irrigation related Schemes

A) National Micro Irrigation Mission

This Scheme provides assistance in procurement of drip/sprinkler irrigation system limited up to 5 hectares/beneficiary at 50%of the cost for general category farmers and that of 60% for small and marginal farmers.

B) Programme of Integrated Development of 60,000 Pulses Villages in Rain fed Areas

The scheme guarantees lining in old farm ponds to reduce the percolation losses.

4.4. Machinery and Technology

A) Macro Management Mode of Agriculture (MMA)

This scheme provides financial assistance to tractor up to 40(HP) at Rs. 45,000 and 25% of the cost whichever is less, power tiller at Rs. 45,000 or 40% of the cost whichever is less, for 8 BHP and above Rs. 25,000 or 40% of the cost whichever is less for fillers with less than 8 BHP, self-propelled reaper, paddy trans planter and other similar self-propelled machines at Rs. 40,000 or 25% of the cost whichever is less and for Power Thresher/ Multi-crop Thresher at Rs. 12,000 or 25% of cost whichever is less.

4.5. Agricultural Credit

- A) **Interest Assistance:** There is a 3% rebate on interest on timely repayment of crop loan upto Rs 3 Lakh at an annual interest of 7%.
- B) **Need of collateral/security:** There is no need for collateral security for farm loan upto Rs 1 lakh.
- C) **Kisan credit card:** Under this scheme farmer can avail crop loan through Kisan credit card. Loan/credit limit is decided on the basis of 3-5 years average of crop sown on cultivated land by farmers. Farmers are also provided maximum cover of Rs 50,000 for accidental death.

4.6. Agricultural Insurance

- A) **National Agriculture Insurance Scheme (NAIS) :** Under this scheme insurance protection is for notified crops, oilseeds and annual horticultural / commercial crops. There is a premium rate of 1.5 to 3.5 percent for cereals and oilseeds crops and actuarial premium rate for annual commercial /horticultural crops are charged (Kharif :2.5% for cereals, millets and pulses and 3.5% for bajra and oilseeds,rabi :1.5% for wheat and 2% for cereals,millets pulses and oilseeds). 10% subsidy on premium is provided to small and marginal farmers. When the crop yield is less than the guaranteed yield of notified crops, the indemnity payment equals to the shortfall in yield is payable to all insured farmers.
- B) **Modified National Agriculture Insurance Scheme (MNAIS) :** This scheme provides insurance assistance for notified food crops, oilseeds and annual horticultural /commercial crops. The annual premium rate for notified crops is charged. There is a subsidy ranging from 40% to 75% of the premium provided to all types of farmers depending on the slab of the premium.In case the sowing is not done due to adverse weather/climate,claims / indemnity up to 25% of sum insured will be paid for prevented sowing /planting risks. When the crop yield is less than the guaranteed yield of notified crops,the indemnity payment is equal to the shortfall in yield is payable to all insured farmers. However advance payment upto 25% of likely claim will be paid as immediate relief.
- C) **Weather crop based Insurance Scheme :** Insurance protection for notified crops,subject to maximum premium upto 12% is charged .20-25% subsidy on premium rate is provided to all type farmers (to make the actual payable premium at par with NAIS). When the weather indices (rainfall/temperature/relative humidity /wind/speed etc.) are differing (lesser /higher)from the guaranteed weather index of notified crops,the indemnity payment equal to deviation /shortfall is payable to all insured farmers of notified crops.
- D) **Coconut palm Insurance scheme(CPIS) :** There is an insurance protection for coconut palm growers.The premium rate per palm ranges from Rs. 4.69 to Rs. 6.35.The insurance policy pays for total Rs. 1,000 of palm on account of happening of perils insured leading to the death of insured palm or is becoming unproductive.

4.7. Plant Protection

- A) **Demonstration of Integrated Pest Management on farmer's field**

The financial assistance is Rs 22,680 per demonstration of IPM on farmer's field.

- B) **Accelerated pulse production programme:**

This scheme supports fungicides for seed treatment, pesticides, biocontrol agents,NPV(virus), organic pesticide pheromone trap etc. for pulses production. The financial assistance provided is 50% of the cost limited to Rs. 5,000 per hectare.

C) National Horticulture Mission and Horticulture Mission for North Eastern States and Himalayan States.:

It focuses on Integrated Pest Management in horticultural crops. The assistance is limited to Rs 4 per hectares per beneficiary @ Rs 1000 per hectare.

D) SCP, TSP, and OTSP (State Govt):

It focuses on crop protection implement /improved Agri implements at Rs 10,000 limit.

4.7. Horticulture

Bee-keeping subsidy for pollination support (maximum 50 colony /beneficiary), honey bee colony and bee hives is 50% i.e. Rs 1400 / colony and Rs 100/hive.

A) Protected cultivation:

It includes green house which has pad and fan system with a subsidy of 50% i.e. Rs 1465/sq.m and a naturally ventilated system with subsidy of 50 % i.e. Rs 375 to 975 /sq.m.It also includes shed net house which has a tabular structure which has a subsidy of 50% i.e. Rs 600/sq.m and also bamboo and wooden structure which also offers subsidy of 50% i.e. Rs 300 and Rs 410 respectively/sq.m. It also includes a plastic munch and a plastic tunnel which has a subsidy of 50%.

B) Integrated post-harvest management:

It includes pack house/on farm collection and storage unit which offers a subsidy of 50 % i.e. Rs 3 lakh per unit. It also has a pre-cooling unit which has a subsidy of 40 % in general areas and 55% in hilly and scheduled areas i.e. Rs 15 lakh for 16 MT. It also has a mobile cooling unit which offers a subsidy of 40% in general areas and 55 % in hilly and scheduled areas of Rs 24 lakh per unit for 5 MT capacity and also a subsidy of Rs 6,000 per MT in cold storage units and ripening chamber.

4.8. Agricultural Marketing Maharashtra

A) Grameen Bhandaran Yojana

This scheme has a godown capacity of 100 Mtr to 30000Mtr (50 MT for hill stations) For all farmers there is 25% subsidy, for women farmers, their self-help groups, cooperatives and entrepreneurs there is 33.33 % subsidy and for other categories, there is a subsidy of 15 % for capital cost.

B) Scheme for Development /Strengthening of Agricultural Marketing Infrastructure, Grading and Standardization.

This scheme is for rapid development of infrastructure projects in agriculture and allied sectors including dairy,meat fisheries and minor forest produce.There is a technical assistance of 25% of the capital cost of project upto 50 lakh on each project. To develop marketing infrastructure to cater to the post-harvest requirement of production and marketable surplus of various farm products there shall be subsidy of 33.33% of the capital cost upto Rs 60 lakh in each case.There is no proper ceiling on subsidy in respect of projects of State agencies.

C) Intensive for nutritional security through intensive Millets promotion (INSIMP)

It is the awareness and food festival for each district with an assistance of Rs 1 lakh/food festival.

Contact:

Nearest office of Taluka Agricultural Officer, Sub-divisional Agricultural Officer, District Superintending Agricultural Officer Divisional Joint Director of Agriculture.

Website of Agricultural Department – www.mahaagri.gov.in.

Kisan call centre -1800-180-1551

4.9. The Maharashtra State Agriculture Marketing Board (MSAMB)

In Maharashtra, like in other states, the MSAMB is playing a critical role in Agri marketing. As per the provision of Maharashtra Agricultural Produce Marketing (Development and Regulation) Act, 1963 section 39(J), the Board has been also mandated: To co-ordinate the Bto B functioning of the Market Committees including programs undertaken by such Market Committees for the development of markets and market areas. To undertake State level planning of the development of the agriculture produce markets. To supervise and guide the Market Committees in the preparation of plans and estimates of infrastructure programmes, to arrange or organize seminars, workshops, exhibitions on subject relating to agricultural marketing and giving training to members and employees of marketing committee.

4.9.1. APMCs

The APMCs were established by the State Govt. for regulating the marketing of different kinds of agriculture and pisciculture produce for the same market area or any part thereof. Market Committee implements the provisions of the Maharashtra Agricultural Produce Marketing (Regulation) Act 1963. The Act provides for establishment of Market Committees in the State. These Market Committees are engaged in development of market yards. At present, there are 305 APMCs with main markets and 603 sub markets.

4.9.2. Loan

As a supplement to the finance of APMC, the Maharashtra State Agricultural Marketing Board gives some amount as loan to enable APMCs to undertake developmental programs. The development works include land, drinking water facility, compound wall, gate, internal roads, electrification, auction halls and platform, godowns, computers, weigh bridges, farmers hostel, trader's and commission agent's shops, etc. As per the rules of the Marketing Board, differing rates of interest is charged for development works including construction of shopping complex are levied. The repayment period also varies.

4.9.3. Export Promotion

Institutions such as MSAMB have an experience of export of fruits and vegetables to Europe, USA, South East Asian Countries, Japan and the Middle East. Some achievements include: Implementation of subsidy scheme for Global GAP certification, erection and successful utilization of Export Facility Centres for various commodities, Participation in various International Commodity Specific Promotion Programs, Successful implementation of Agri Export Zones of Alphonso Mango, Kesar Mango, Onion, Pomegranate, Banana and Mandarins; Serving as Nodal Agency for implementation of Asian Development Bank and IFAD funded projects in Maharashtra

4.9.4. Market Network - MARKNET (Agricultural Market Intelligence Network in Maharashtra State)

IK-MARKNET is a network of computerized APMCs in the State. Under this project, the MSAMB has computerized APMCs and connected through the internet. The objectives being: To exchange and disseminate market arrivals and prices of Agricultural commodities for the benefit of farmers; To bring in effectiveness and transparency in

functioning of APMCs. Presently, 294 main APMCs and 66 sub yards have been computerized under the MARKNET Project. All 360 computer sets have been provided to APMCs free of cost under AGMARKNET scheme of Director of Marketing and Inspection, Govt. of India. Each computerized APMC has one computer, UPS, modem, printer, and internet facility. Daily arrivals and prices data is being entered into the computer at APMCs and uploaded on the MSAMB's website (www.msamb.com). Data uploaded on the web site is compiled and made available through web site to everybody.

4.9.5. Pre Cooling and Cold Storage (FPC and CS)

The Maharashtra State Agricultural Marketing Board undertook the first initiative in the State (1990), and even in the country, to promote the use of Temperature Management Technology (TMT) by setting up of FPC and CS facilities under the Co-operative sector. About 32 FPC and CS facilities have been set up in the Co-operative sector in the State. Due to this effort Maharashtra is the largest exporter of fresh Grapes from the country and exports nearly 70% of all fresh fruits and vegetables from the country. The State has also successfully exported fresh Pomegranate and Mango using the FPC and CS facilities. Some APMCs have commercial cold stores in their premises and MSAMB with help of APEDA has facilitated establishment of about 20 export facility centre.

4.9.6. Agribusiness Infrastructure Development Investment Program (AIDIP)

The Agribusiness Infrastructure Development Investment Program (AIDIP) is a project of Government of Maharashtra (GoM), implemented under Public-Private- Partnership (PPP) framework. GoM has proposed to avail loans from Asian Development Bank (ADB) to fund the viability gap under the proposed project. In the total program cost, private partner has to invest 60 % of cost and remaining 40 % of cost which will be contributed by ADB and the State Governments in the ratio of 80:20 respectively. ADB funds will flow in the form of loan to the State Government to which Government of India (GoI) will act as a guarantor. Department of Cooperation, Marketing and Textiles, Government of Maharashtra is the Executing Agency for the project and Maharashtra State Agricultural Marketing Board (MSAMB) is Implementing Agency. AIDIP is aimed at addressing three main constraints to agriculture growth-outdated technologies; lack of public investment in basic infrastructure and limited diversification. In an Integrated Value Chain (IVC) approach, the program targets improving physical and institutional linkages along agricultural value chains through support of agribusiness market infrastructure, support infrastructure like last mile roads, power, water, systems relating to market intelligence, and capacity building and strengthening/establishing value chain linkages. The intent of the program is to achieve accelerated investment in agriculture and to support related infrastructure in rural areas, along the Integrated Value Chains.

4.9.7. Maharashtra Agricultural Competitiveness Project

The Project Development Objective of the Maharashtra Agricultural Competitiveness Project (MACP) is to increase the Productivity, Profitability and Market Access of the farming community in Maharashtra. This is being achieved by providing farmers with technical knowledge, market intelligence and market networks to support diversification and intensification of agriculture production aimed at responding to market demand. Farmers are also assisted in establishing farmer organizations, developing alternative market channels outside of the regulated markets and in supporting the modernization of promising traditional wholesale markets. The project has the following main components: Intensification and Diversification of Market led Production; and Improving Farmers Access to Markets

4.9.8. Agricultural Pledge Loan Scheme of MSAMB

In the harvesting season there is a huge arrival of commodities in the market in a very short period, which causes substantial fall in market prices of the commodity. Farmers do not have capacity to hold their stock, so they have to sell their produce at a very meagre rate in the market. Under the pledge loan scheme the farmer keeps his produce in the APMC godown and gets 75% of the value as loan. As the prices of the commodity rises in the market the farmer sells his produce in the market and repays his loan and thus fetches higher price for his produce at reasonable levels.

The scheme of pledge loan is available for Moong, Tur, Udid, Soybean, Paddy, Sunflower, Safflower (Kardai) and Gram (Chana). MSAMB has also covered Jowar, Bajra, Maize, Wheat, Turmeric, Raisins (Bedana) and Cashew nuts in this scheme.

Under this scheme, a farmer can store his produce in Godowns of APMC and can immediately secure 75% cost of his produce (for Jowar, Bajra, Maize and Wheat 50% or Rs.500 which is less), at an interest rate of 6%. The APMCs maintain this pledged stock free of cost. The farmers can sell their produce when the prices are higher. The pledge loan limits are sanctioned to APMCs as per their demand.

Under the scheme, the farmer gets agricultural pledge loan at the rate of 6% to an extent of 50% to 75% of the value of the produce prevailing in the market. The farmer is allowed to avail this facility up to a period of 180 days.

4.9.9. Cold Storage Subsidy Scheme by the Maharashtra State Agricultural Marketing Board, Pune

Maharashtra State is the major producer of fruit and vegetables in the country. With the effective implementation of the EGS scheme the cultivated land under horticulture crops in the State increased by almost 500 %. The present level of production of horticultural produce in the State is expected to go up by 100 % within a very short period of next 2-3 years. It is estimated as much as 30 - 35 % of fruit and vegetable production is lost on account of lack of adequate post-harvest infrastructure. Agricultural produce of the farmers does not get remunerative prices due to lack of grading, proper packaging and in turn there is huge post-harvest losses. In future, establishment of Cold Chain in the State has a prime importance for fetching good prices for agricultural produce in the International markets. The perishable agricultural produce will get storage facility if cold storages are established by Agricultural Produce Market Committees (APMCs) and Co-operative societies functioning in various regions of the State. This will not only reduce glut in the market and avoid price fluctuation but also increase the shelf life and quality of agricultural produce. Thus, in turn, the producer would get remunerative prices for their produce. Keeping this view in mind the MSAMB has launched "Cold Storage subsidy scheme" from August 2004 in the State. The scheme details as follows: Subsidy @ 25 % of the total project cost with maximum limit of Rs. 2.5 Lakh per project. Subsidy is available for capacity up to 100 MT cold storage.





End Notes

- i Bosc et al, 2001
- ii Padmanand, Kalsi, Sood, Reddy and Singh, 2017 September
- iii Bijman and Wolni, 2008
- iv Trebbin and Hassler, 2012
- v Baviskar and Attwood, 1991
- vi Ebrahim, 2000
- vii Kumar, 1990; Esham and Usami, 2007
- viii Padmanand et al, 2017 September
- ix Padmanand et al, 2017 September
- x Sukhpal Singh, 2014
- xi SFAC, 2017 December
- xii The typical criteria for membership of FPO or FPC may be viewed as follows: i) A member will express his willingness to become a member of an SHG; ii) A member will actively participate in all functions and activities of SHG; iii) A member will contribute his equity to the Producer Company; iv) A member will bring all or part of his produce to the FPC for sale; v) A member will purchase at least part of his farm inputs through the FPC; vi) A member will produce and prepare his produce for marketing as per directions of FPC; vii) A member will contribute his share to the Producer Association as upfront payment for the business development plan of a FPC.
- xiii NABCONS, 2011
- xiv Padmanand et al, 2017 September
- xv Also see Padmanand et al, 2017 September
- xvi Also see Padmanand, Sood and Reddy, 2016 March
- xvii NABCONS, 2011
- xviii Padmanand et al, 2017 September
- xix Department of Agriculture and Co-operation, Ministry of Agriculture, Government of India.
- xx <http://www.financialexpress.com/market/30-maharashtra-apmcs-join-enam/1082271/>
- xxi <http://www.financialexpress.com/market/commodities/maharashtra-govt-apmc-move-shows-results-paves-way-for-private-markets/333315/>
- xxii APMC Act of Maharashtra
- xxiii See Padmanand, Khodwekar and Sood, 2017 (Submitted)
- xxiv Awasthi et al, 2004
- xxv Padmanand et al, 2016 September
- xxvi Padmanand and Kurian, 2009
- xxvii Awasthi, Jaggi and Padmanand, 2004





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MACP Promoted FPCs list available on : <http://macp.gov.in/maharashtra-agricultural-competitiveness-project>



“A quantum jump in farmer’s income presupposes modernization of the farm sector. Innovative organisations like Farmer Producer Companies (FPCs) drive such a change. They need strong managerial skills to match emerging challenges. This is very handy, informative and instructional Manual to build capacities of the Board of Directors and other functionaries of FPCs.”

Dr. Christy Fernandez, IAS (Rtd), Chairman, Kerala State Industrial Development Corporation and former Secretary to the Hon. President of India.

“Most useful contribution for Agri Business stakeholders in the country. Consolidation of farm holdings, value addition through Agro processing, joint action and marketing by farmer communities is the route to doubling the farmer’s income.”

Dr. N.S. Kalsi, IAS, Ph.D. (Cambridge University, U.K), Additional Chief Secretary, Govt. of Punjab

“This is a valuable initiative and should provide useful insights to FPCs to carry out various business activities and in the long run emerge as successful agri-entrepreneurs. It is also important to learn about good practices and success stories of FPCs which will serve both as motivation and way forward for fellow FPCs..”

Sumanta Chaudhuri, IAS, Managing Director, Small Farmers’ Agri-Business Consortium (SFAC)

“It gives me great pleasure to commend this publication to concerned stakeholders of Maharashtra and the Nation. There is an impressive numerical growth of FPOs over the past couple of years, but we still have a long way to go in promoting FPOs having wider base of producer farmers as its share-holders. FPOs need to have a viable business model while dealing with production system, post-harvest management, value addition and marketing of produce of its share-holders. The GoM has called upon FPOs to come forward and ensure that their share-holders are able to get value added to their farm produce by making the same of Fair Average Quality (FAQ) and tendering the same at procurement centres set up under Price Support Scheme collectively in order to realise benefit of reduction in transport and handling cost. I hope, some of the FPOs will respond positively to the call. I am sure, this manual has been able to identify real FPCs while selecting them for highlighting their achievements. Real FPOs can prove to be a game-changer given their potential, and this manual, which is perhaps the first ever such publication of its kind is a very useful contribution. It could significantly help in the capacity building of the critical stakeholders namely, the Board of Directors' of FPCs.”

Bijay Kumar, IAS, Additional Chief Secretary, Govt. of Maharashtra

“I am delighted to see this document and the immense role it will play in developing the FPC ecosystem. I am also very pleased to note the role GT is playing in helping shape, a more vibrant India by contributing to GoI priorities. Many congratulations to the entire MACP and GT Team for the stupendous effort..”

Vishesh .C .Chandiok, National Managing Partner, Grant Thornton India LLP

“Prof. Padmanand collaborated with me to firmly establish industrial clusters in Kerala. I am happy that the same principles and tools of collective entrepreneurship are now applied in development of FPCs in the farming communities. I am sure that these efforts will go a long way in realising the GoI goal of doubling farmer’s income by 2022.”

P. H Kurian, IAS, Additional Chief Secretary, Govt. of Kerala

“The Manual is coined to rekindle new and dynamic sources of growth through collective entrepreneurship and management of FPCs with practical insight and foresight.”

Dr. Jebamalai Vinanchiarachi, Principal Adviser, KMA Austria and formerly to DG, UNIDO, Vienna

“Farmers Producer Companies and other forms of FPOs offer farmers advantages that come from higher scales of operation at various stages of agricultural value chain system. This manual prepared by authors is borne of their vast experience in the field and is a must-read for filling practical knowledge gaps.”

S. J. Chiru, IAS, Commissioner of Agricultural Marketing and Agri Business, Govt. of Tamilnadu.

“This work could not have come at better times.... Particularly when we are endeavouring for doubling farmer’s income. A delightful blend of concepts of value chain and clusters. Author deserve commendation as it will go a long way in supporting Farmer Producer Clusters.”

Sh. T. L. Satya Prakash, IAS, Managing Director, Haryana State Industrial & Inf. Dev. Corpn. Ltd.

“The initiatives by Grant Thornton India (Agri Business Promotion Facility - ABPF)) for promotion of Farmer Producer Organisations/ Companies is a laudable step. It will bring about a revolution in the field of agriculture production, Precision Farming with technological intervention, market access and remunerative prices for farm produce through collective bargaining. The initiative will significantly boost farmer’s income in future.”

Dusmanta K. Behera, IAS, Department of Agriculture and Farmers Welfare, Govt. of Haryana

“I congratulate the Grant Thornton India (ABPF) and MACP for publication of this Resource Book for Farmers Producer Companies. In fact, the timing of the publication is most appropriate as the concept of FPCs as an institution is still in the formative stage. It will be immensely useful not only to practitioners but also give important inputs to policy makers. The best practices listed in the book could be scaled up with need based customized changes.”

Chiranjiv Choudhary, IFS, Commissioner and Ex-Officio Secretary Horticulture & Sericulture, Agriculture & Cooperation Dept, Govt. of Andhra Pradesh

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