



**Syllabus for Training of Master Trainers (ToMTs),  
Training of Trainers (ToTs) & Training of  
Beneficiaries (ToBs) under PMFME Scheme**



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## Capacity Building Framework

Capacity building component of PM FME Scheme essentially geared towards strengthening entrepreneurial capability of existing micro food processors and upgradation of the skill of the workers working in those units in critical areas like food handling, safety, hygiene and their own safety at plant level.

There are 3 levels of training proposed under this programme namely Training of Master Trainer (ToMT), Training of District level trainer (ToT) and Training of Beneficiary (ToB). Master trainers will be trained by the subject experts from sector specific national institutes, Master Trainer will impart training to district level trainers and district level trainers will conduct training to beneficiaries.

Major component of capacity building relevant to the target beneficiaries are EDP training and Product training.

### Entrepreneurship Development (EDP+)

The standard Entrepreneurship Development Programs imparted under other MSME schemes will be customized to include health, hygiene, standard, quality aspect of food processing. Some of the important features of such ED program (EDP+) are as under:

- i. To impart knowledge on identification of business opportunities and preparation of business plan
- ii. Familiarization on procedure and formalities of setting of an enterprise including registration
- iii. Develop skills on management of a unit including their finance, regulatory and statutory requirements.
- iv. Hygiene, FSSAI standards, Weights & Measures regulation and registration etc. issues specific to food processing sector.

### Product Specific Skilling

- i. Profile of products under the group, procurement and quality standards complementary products, by-products and their use
- ii. Profile of processing technology, overview of machinery, their costing any sourcing
- iii. Different types of packing, scientific storage, shelf life and food handling
- iv. Product quality and safety requirement as per the national and international standards
- v. Appreciation of the importance of quality of products in value addition, branding and marketing.

### Domain Skills & Platform Skills

Domain Skills refers to the sector-specific skills, technical knowledge, and know-how to perform a specific job accurately. Platform Skills refers to presentation behaviors that a trainer uses to transmit content effectively. Trainers must demonstrate excellent platform skills to get their messages across. Both Master trainer and DLT would be trained for two core skills being domain skills and platform skills.

### Modes of Delivery

The training would be delivered by following modes

- i. Classroom lecture & demonstration
- ii. Live classes(online)
- iii. Self-paced online learning material
- iv. Training on machines

### Curriculum and Course Content

The curriculum of trainings is envisaged under national skills qualifications framework (NSQF) to ensure the quality and uniformity of training program throughout the country.

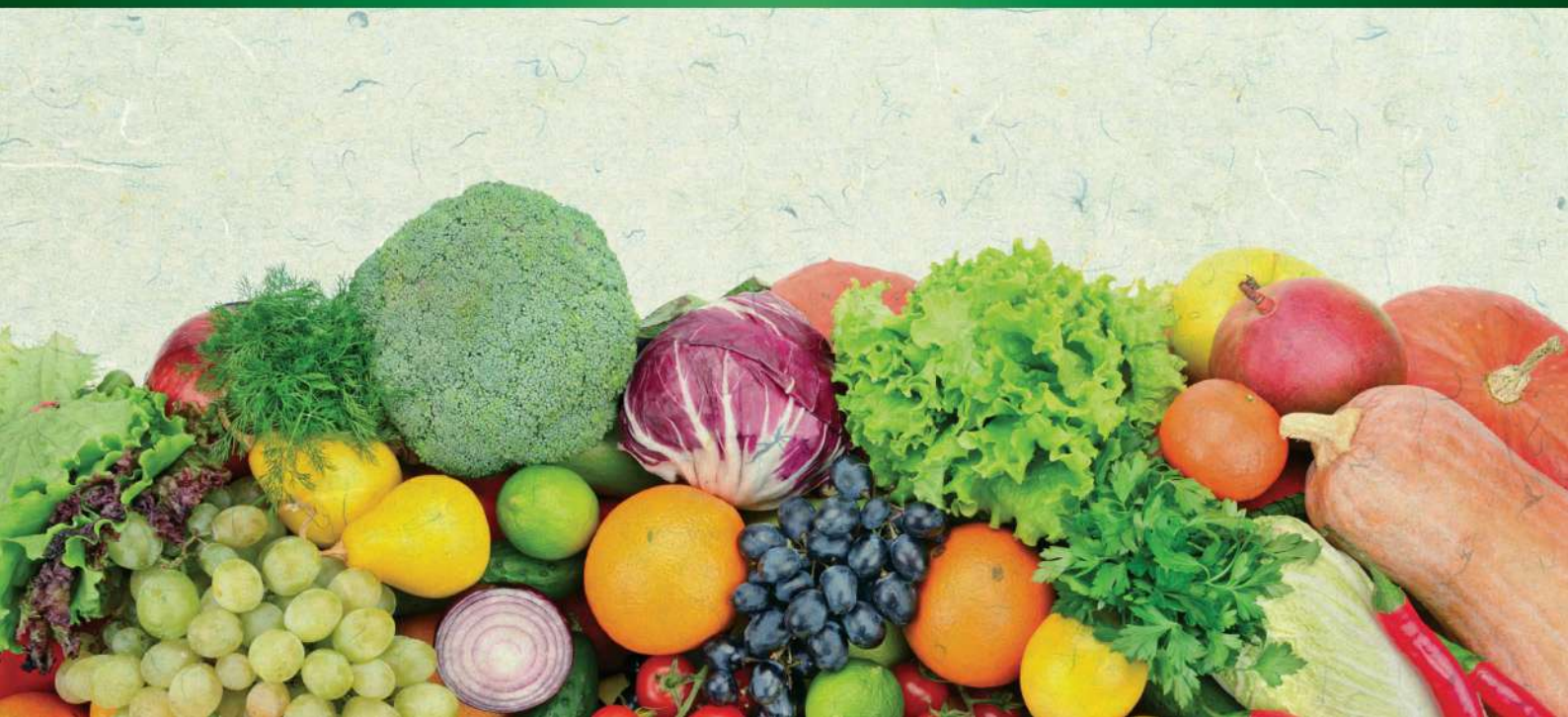
The details of education, qualification and experience required for various levels of training is as tabulated below.

Type of Training		Training	Duration	Eligibility		
				Qualification	Experience	
ToMT	Food Sub Domain		Domain Skills	20	UG/PG degree in Food Technology/Food Engg./ Food Science or any related subject to Food Processing.	Minimum 5 years
			Platform skills	16		
			Assessment	4		
			<b>Total hr</b>	<b>40</b>		
	EDP		Domain Skills	20	Diploma/Degree in Management/Trainers in EDP Institute of the State Govt., Private Institutions, RSETI, RUDSETI	Minimum 2 years
			Platform skills	16		
			Assessment	4		
			<b>Total hr</b>	<b>40</b>		
ToT	New Trainers		Food Sub Domain		UG degree/Diploma in Food Technology/Food Engg./Food Science or any related subject in Food processing.	Minimum 2 years
			Domain Skills	32		
			Platform skills	28		
			Assessment	4		
			<b>Total hr</b>	<b>64</b>		
	EDP		Domain Skills	32	EDP Trainers of RSETI, RUDSETI and designated District level training Institute/Agencies	-
			Platform skills	32		
			Assessment	-		
			<b>Total hr</b>	<b>64</b>		
	Existing Trainers		Food Sub Domain		UG degree/ Diploma in Food Technology/Food Engg./Food Science or any related subject in Food processing.	Minimum 2 years
			Domain Skills	8		
			Platform skills	4		
			Assessment	4		
			<b>Total hr</b>	<b>16</b>		
	EDP		Domain Skills	8	EDP Trainers of RSETI, RUDSETI and designated District level training Institute/Agencies.	-
			Platform skills	8		
Assessment			-			
<b>Total hr</b>			<b>16</b>			
ToB	Existing Entrepreneurs		Food Sub Domain			
			Domain Skills	25		
			Platform skills	21		
			*Assessment	4		
			<b>Total hr</b>	<b>50</b>		
	New Entrepreneurs		Food Sub Domain			
			Domain Skills	30		
			Platform EDP skills	26		
*Assessment			4			
		<b>Total hr</b>	<b>60</b>			

\*If Required



**Syllabus for Training of Master Trainers (ToMTs)  
under PMFME Scheme**



## Master Trainer - Training Syllabus

### 1.1 Fruits and Vegetable Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 40 hr/5 days (Online+Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 20 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. status, market size and scope of fruit and vegetable processing industry in India; selection, procurement and supply chain management of fruits and vegetables for processing industry.	2	1
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	2	1
<b>Equipments and specifications of machineries in F&amp;V processing</b> Equipment involved in unit operations of fruits and vegetables. Specifications of machineries involved in fruits and vegetables processing. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	3	1
<b>Value addition of fruits and vegetables</b> Sugar conserves: Jams, jellies, marmalades. Beverages: Juices (carbonated and non-carbonated), squashes, syrups, nectars, RTS, crushes, cordial, fruit wine. Preparation of concentrates-puree, sauces, ketchups, soup, and paste. Preparation of pickles, and chutneys. Waste and by-products utilization.	2	4
<b>Packaging of fruits and vegetable products</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of fruits and vegetables products. Selection of packaging materials standards for fruits and vegetable products. Recent packaging techniques to extend the shelf life of the product-aseptic packaging, tetra pack, convenient and smart packaging. Advances in storage of fruits and vegetables.	2	2
<b>Platform Skills – 16 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to fruits and vegetable processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and international standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	6	2
<b>Soft skills and communication</b> Importance of soft skills and communication -networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – confidence building – entrepreneurcompetencies – risk taking and goal settings - effective communication skills.	6	2
Assessment by FICSI	4	-
Sub total	28	12
<b>Total: 40 hr</b>		



## Master Trainer - Training Syllabus

### 1.2 Dairy Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 40 hr /5 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 20 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. status, market size and scope of dairy processing industry in India; Selection, procurement and supply chain management of milk for dairy processing industry.	2	1
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location – location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout –repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	2	1
<b>Equipments and specifications of machineries in M&amp;P processing</b> Equipment involved in unit operations of milk processing. Specifications of machineries involved in dairy industry. Selection and installation of storage tank, heat exchangers-chillers, pasteurizers, evaporators, plate heat exchangers; homogenizer; centrifuge; packaging machine. Refrigeration and chilling towers. Steam generation, supply and selection of boilers. Process control equipment and accessories for a complete milk processing plant. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	3	1
<b>Processing and value addition of milk</b> Processing of fluid milk- chilling, standardization, homogenization, pasteurization, cream separation, and packing. Sensitization about types of processed fluid milk- standardized milk, toned, double toned and skimmed milk. Aseptic processing of milk. Manufacturing of milk products- principle and procedures for preparation of curd, cream, butter, ghee, condensed milk, dried milk/milk products, ice-cream, khoa, paneer, cheese, buttermilk, skimmed milk powder, traditional Indian dairy products, and by-products utilization. Waste and by-products utilization.	2	4
<b>Packaging of milk and milk products</b> Advances in packaging, different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of milk and milk products. Selection of packaging materials, standards for milk and milk products. Recent packaging techniques to extend the shelf life of the product-aseptic packaging, convenient and smart packaging. Advances in storage of milk and milk products.	2	2
<b>Platform Skills – 16 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to dairy processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	6	2
<b>Soft skills and communication</b> Importance of soft skills and communication -networking skills–creative & innovative thinking – problem management – stress and emotional management – leadership and teaming up – confidence building – entrepreneurs competencies – risk taking and goal settings - effective communication skills.	6	2
Assessment by FICSI	4	-
Sub total	28	12
<b>Total: 40 hr</b>		

## Master Trainer - Training Syllabus

### 1.3 Grain Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 40 hr/5 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 20 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status and scope of grain processing; Preprocessing of cereals and pulses: drying, cleaning, grading and detection of extraneous matter. Effect of different factors on various properties.	2	1
<b>Equipments and specifications of machineries grain processing</b> Production of whole wheat flour-atta/ maida, Suji, dalia- process and equipment: tempering, break and reduction, purifiers and sifters, flour blending comparison of milling of hard common wheat, soft wheat and durum wheat. flour classification and grading. Nutritional consequences of flour milling and flour enrichment. Turbo grinding and air-classification, flour grades and their suitability for baking purposes, assessment of flour quality and characteristics. Determination of dry and wet gluten content of flour.	2	2
Corn processing: Production corn flour-wet milling and dry milling method, corn pops and quality evaluation of popped corn. Preparation corn syrup. Paddy processing: Parboiling and milling of paddy, aging of rice, rice enrichment, processed rice products. Pulse milling: Pre-treatment in dal milling like cleaning, grading, soaking, and drying. milling pulses for production of dal, e.g. pigeon pea, green gram, bengal gram.	2	1
Cereal-based snack foods- and breakfast cereals pasta and noodle products. Preparation of expanded & puffed rice from raw and parboiled materials. Extruded products.	2	2
<b>Packaging of grains and value-added products</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in grain processing and their value-added products. Selection of packaging materials and standards for grain products. Recent packaging techniques to extend the shelf life of the product technologies -aseptic packaging, tetra pack, MAP, hermetic packaging, convenient intelligent and smart packaging.	2	2
<b>Plant layout and maintenance for grain processing</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	2	-
<b>Platform Skills – 16 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices, HACCP implementation program. Regulations and standards for maintaining food safety and quality –BIS, FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	6	2
<b>Soft skills and communication</b> Importance of soft skills and communication -networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – confidence building – entrepreneurs competencies – risk taking and goal settings - effective communication skills.	6	2
Assessment by FICSI	4	-
Sub total	28	12
<b>Total: 40 hr</b>		

## Master Trainer - Training Syllabus

### 1.4 Fish and Marine Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 40 hr /5 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 20 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and scope of fish and marine food processing industry in India; Selection, procurement and supply chain management of fish and marine food for processing industry.	2	1
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	2	1
<b>Equipments and specifications of machineries in F&amp;M processing</b> Equipment involved in unit operations of fish and marine food processing. Specifications of machineries involved in fish and marine food processing. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	3	1
<b>Value addition of fish and marine</b> Handling and preservation - salt curing and smoking – drying of fish - freezing preservation - freezing methods– block frozen, IQF and cooked forms. Minced products - surimi process – fish meal- fish oil. Waste and by-products utilization.	2	4
<b>Packaging of fish and marine Products</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of fish and marine products. Selection of packaging materials standards for fish and marine products. Recent packaging techniques to extend the shelf life of the product-aseptic packaging, convenient and smart packaging. Advances in storage of fish and marine products.	2	2
<b>Platform Skills – 16 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to fish and marine food processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	6	2
<b>Soft skills and communication</b> Importance of soft skills and communication -networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – confidence building – entrepreneurs competencies – risk taking and goal settings - effective communication skills.	6	2
Assessment by FICSI	4	-
Sub total	28	12
<b>Total: 40 hr</b>		

## Master Trainer - Training Syllabus

### 1.5 Meat and Poultry Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 40 hr/5 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 20 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of meat and poultry processing industry in India; Selection, procurement and supply chain management of meat and poultry for processing industry.	2	1
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location – location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout –modern abattoirs – repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	2	1
<b>Equipments and specifications of machineries in M&amp;P processing</b> Equipment involved in unit operations of meat and poultry processing. Specifications of machineries involved in meat and poultry processing. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	3	1
<b>Value addition of meat and poultry</b> Dried and smoked meat products. Comminuted meat products: sausages, semi dry sausages, dry sausages. Cured meat products. Restructured meat. Fried, broiled,roasted meat products. Braising and stewing of meat products. Curries, bacon, ham, cutlet-mix, chicken-n-ham and salami. Egg powder production, uses of egg powder in bakery and confectionary, noodles and pasta, mayonnaise and salad dressings. Waste and by-products utilization.	2	4
<b>Packaging of meat and poultry products</b> Advances in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of meat and poultry products. Selection of packaging materials standards for meat and poultry products. Recent packaging techniques to extend the shelf life of the product-aseptic packaging, convenient and smart packaging. Advances in storage of meat and poultry products.	2	2
<b>Platform Skills – 16 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to meat and poultry processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	6	2
<b>Soft skills and communication</b> Importance of soft skills and communication -networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – confidence building – entrepreneurs competencies – risk taking and goal settings - effective communication skills.	6	2
Assessment by FICSI	4	-
Sub total	28	12
<b>Total: 40 hr</b>		

## Master Trainer - Training Syllabus

### 1.6 Bakery and Confectionery Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 40 hr/5 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 20 h</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and scope of bakery and confectionery industries in India- raw materials for bakery and confectionery products specifications, compositions, role of raw materials - flour, types of flour, quality assessment of flour, sugar, shortenings, leavening agents, egg, salt, water, moistening agent, cocoa products, fruits, nuts, improvers, flavoring and coloring agents.	2	2
<b>Production of bakery and confectionery products</b> Bread making- methods- specification for various types of breads- manufacturing process of biscuit, cookies- crackers- buns- preservation of bakery products. Frozen bakery products. production of chocolate, fondant, caramels, fudge and toffee and cakes and pastries.	2	3
<b>Bakery machinery and equipment:</b> Identification and selection of bakery and confectionery equipment-weighing equipment- manual scale, automatic weigh, liquid measuring. Mixing- blenders, horizontal and vertical planetary, continuous. Make up equipment,divider, rounder, proofer, moulder. Baking equipment – different oven, slicer. Confectionary products machines.	2	2
<b>Packaging of bakery and confectionery products</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging. Selection of packaging materials and standards for baked products. Recent packaging techniques to extend the shelf life of the product. Technologies-MAP, hermetic packaging, convenient intelligent and smart packaging.	2	2
<b>Plant layout and maintenance for bakery and confectionery processing:</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	2	1
<b>Platform Skills – 16 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices, HACCP implementation program. Regulations and standards for maintaining food safety and quality –BIS, FSSAI and International standards – FSSAI packaging and labeling requirements. FSSAI registration and licensing procedure.	6	2
<b>Soft skills and communication</b> Importance of soft skills and communication -networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – confidence building – entrepreneur’s competencies – risk taking and goal settings - effective communication skills.	6	2
Assessment by FICSI	4	-
Sub total	28	12
<b>Total: 40 hr</b>		

## Master Trainer - Training Syllabus

### 1.7 Fat and Oil Seed Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 40 hr/5 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 20 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and scope of fats and oil seed processing industry in India; Selection, procurement and supply chain management of fats and oil seed for processing industry.	2	1
<b>Processing of fats and oil seeds</b> Milk and animal fats: Production, characteristics, composition, processing and utilization of milk fats and butter, animal fats such as lard and tallow, fish and marine oils and waste and by-products utilization. Edible oil sources: Coconut, palm, palm kernel, olive, cocoa butter, sunflower, safflower, sesame, groundnut, mustard, rapeseed, canola, soybean, linseed, castor, rice-bran, cottonseed, corn. Processing of oils seeds and refining oil. By product utilization of oil milling industries.	2	4
<b>Equipments and specifications of machineries in fats and oil seed processing</b> Equipment involved in unit operations of fats and oil seed processing. Specifications of machineries involved in fats and oil seed processing. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	3	1
<b>Packaging of fats and oils</b> Advance in packaging, requirements, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of fats and edible oils. Selection of packaging materials standards for fats and oils. Advances in storage of fats and oils. - changes during storage – rancidity – causes – atmospheric oxidation and enzyme action – free fatty acid – color.	2	2
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	2	1
<b>Platform Skills – 16 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. Concept of quality assurance and quality control in relation to fat and oil industry; quality management systems - ISO 9000; TQM, HACCP, GMP, GHP, GLP relevant to fat and oilseed processing; role of International organizations-ISO, IDF, CAC, AOAC and WTO, National organizations - BIS, Agmark; significance of oil and allied products order, FSSAI and APEDA in oil industry; guidelines for setting up quality control laboratory. Legislation on fats and oils, packaging laws and testing of packaged materials.	6	2
<b>Soft skills and communication</b> Importance of soft skills and communication -networking skills–creative & innovative thinking – problem management – stress and emotional management – leadership and teaming up – confidence building – entrepreneurs competencies – risk taking and goal settings - effective communication skills.	6	2
Assessment by FICSI	4	-
Sub total	28	12
<b>Total: 40 hr</b>		

## Master Trainer - Training Syllabus

### 1.8 Spices and Plantation Crops Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

Training Time: 40 hr/5 days (Online + Offline)

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 20 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and scope of spices and plantation crop processing industry in India; Selection, procurement and supply chain management of spices and plantation crop for processing industry.	2	1
<b>Equipments and specifications of machineries in spices and plantation crop processing</b> Different unit operations pertaining to spices and plantation crops processing. Equipment involved in unit operations of different spices and plantation crop processing. Specifications of machineries involved in spices and plantation crop processing. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	3	1
<b>Value addition of spices and plantation crops</b> Spices: Extracts-essential oils, oleoresin, flavor and natural color and pigments. Preparation of powders, dried spices and condiments, dehydrated products. Pepper- dehydrated green pepper, white pepper and canned pepper. Ginger- wine, ginger preserve. Turmeric – curcumin processing. Chillies – brined chilli, pickle and sauce preparation. Waste and by-products utilization. Plantation crops: Coconut – processing of coconut milk, milk powder, coconut oil extraction, virgin coconut oil, activated carbon and husk. Cashew – nut processing, cashew apple juice preparation. Cocoa – cocoa butter processing.	2	4
<b>Packaging of spices and plantation crop products</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of spices and plantation crop and their value-added products. Selection of packaging materials and standards for spices and plantation crop products. Recent packaging techniques to extend the shelf life of the product such as oil, oleoresin, coconut milk, preserve and juices. Technologies - aseptic packaging, tetra pack, MAP, hermetic packaging, convenient intelligent and smart packaging. Advances in storage of spices and plantation crops.	2	2
<b>Plant layout and maintenance for spices and plantation crops processing</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	2	1
<b>Platform Skills – 16 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices, ASTA standards for clean spices and CODEX national and international standards relevant to black pepper, cardamom, turmeric, ginger, tamarind, curry leaf and coriander in spices and tea, coffee, cocoa, cashew, rubber in plantation crops. HACCP implementation program. Regulations and standards for maintaining food safety and quality –BIS, FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	6	2
<b>Soft skills and communication</b> Importance of soft skills and communication -networking skills–creative & innovative thinking – problem management – stress and emotional management – leadership and teaming up – confidence building – entrepreneurs competencies – risk taking and goal settings - effective communication skills.	6	2
Assessment by FICSI	4	-
Sub total	28	12
<b>Total: 40 hr</b>		

## Master Trainer - Training Syllabus

### 1.9 Minor Forest Produce Processing

Technical Aspects: Processing, Value addition, Trading, Machinery, Packaging and Storage, Procurement, Food safety regulations & certification.

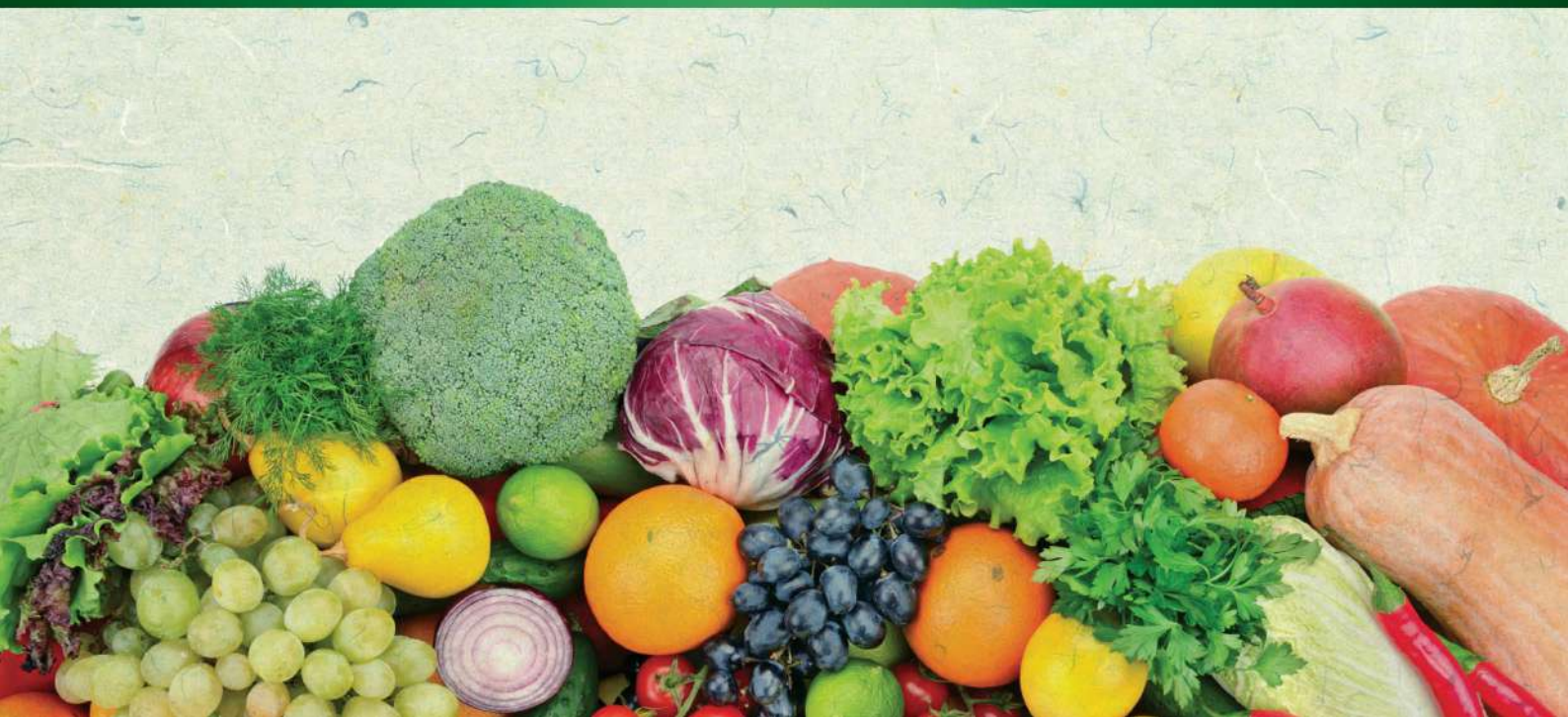
**Training Time: 40 hr/5 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 20 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status and scope of minor forest produce (MFP); Types of minor forest produce under different categories – medicinal, essential oils. Edible wild plants, gums, resins, natural coloring materials etc.	2	1
<b>Collection &amp; trading of minor forest produce</b> Significance in tribal economy–sustainable cultivation & collection methods, mechanism of marketing of minor forest produce – minimum support price- promotion	2	1
<b>Equipments and specifications of machineries in minor forest produce</b> Equipment involved in collection of minor forest produce. Specifications of machineries involved in processing of different minor forest produce. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	3	1
<b>Value addition of minor forest produce</b> Sugar conserves: Jams, jellies, toffee. Beverages: Juices, squashes, syrups, nectars, RTS.Preparation of concentrates-puree, soup, and paste. Preparation of pickles, and chutneys. Medicinal & aromatic products.	2	4
<b>Packaging of minor forest products</b> Different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of MFP & their value-added products. Selection of packaging materials standards for minor forest produce. Recent packaging techniques to extend the shelf life of the product. Storage of value added products from minor forest produce.	2	2
<b>Platform Skills – 16 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to minor forest produces. Indian forest act, status of certification of Non-Timber Forest Products (NFTP). FSSAI registration and licensing procedure.	6	2
<b>Soft skills and communication</b> Importance of soft skills and communication -networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – confidence building – entrepreneurs competencies – risk taking and goal settings - effective communication skills.	6	2
Assessment by FICSI	4	-
Sub total	28	12
<b>Total: 40 hr</b>		





**EDP Training Syllabus for Master Trainers  
under PMFME Scheme**



## EDP TRAINING CURRICULUM FOR MASTER TRAINERS UNDER PMFME SCHEME

### COMPONENT 1: DOMAIN SKILLS

**Time allotted: 20 hours [15 hours of training and 5 hours of self-study]**

Day – 1		
Session	Content	Resource Person
1	<b>Business Opportunity Identification</b> <ul style="list-style-type: none"> <li>• Introduction to Entrepreneurship Opportunity</li> <li>• Selection Criteria for Entrepreneurship Opportunity Identification</li> <li>• Evaluation of Entrepreneurship opportunity viability</li> <li>• Tools &amp; Process to evaluate the viability of Entrepreneurship opportunity</li> <li>• Basic Approach for Need Analysis for identifying Entrepreneurship opportunity</li> <li>• Case Study and Market Study</li> </ul>	1.5 Hr. Online interactive teaching + 30 min self-learning
2	<b>Feasibility Analysis &amp; Business Model</b> <ul style="list-style-type: none"> <li>• About Entrepreneurship, how to become Entrepreneur; Characteristics of Successful Entrepreneurs</li> <li>• Creativity &amp; Entrepreneurship: Identification of opportunity; Creative problem-solving process; Barriers to creativity</li> <li>• Business Plan: Need of business plan; Elements of business Plan; Financial and organizational feasibility of business plan</li> <li>• Family Business Plan: Concept, Benefits and different stages of family business plan; Types and Model of family business plan; Challenges faced by family business plan</li> <li>• Feasibility study: Introduction to concept and different types of feasibility study</li> </ul>	1.5 Hr. Online interactive teaching + 30 min self-learning
3	<b>IPR issues for entrepreneurs</b> <ul style="list-style-type: none"> <li>• Introduction to IPR</li> <li>• Types of IPRs: Patents, Trade Mark, Industrial Design, Trade Secrets, Geographic Indications</li> <li>• How to file an IPR patent</li> <li>• About Copyrights</li> <li>• Kind of Property rights: Economical and Moral</li> </ul>	1.5 Hr. Online interactive teaching + 30 min self-learning
4	<b>Creation of enterprise: Legal Aspects</b> <ul style="list-style-type: none"> <li>• Introduction, main features, merits, limitation and how-to setup seven different types of business forms as under:                             <ol style="list-style-type: none"> <li>1. Sole Proprietorship</li> <li>2. Hindu Undivided Family (HUF)</li> <li>3. Partnership</li> <li>4. Limited Liability Partnership</li> <li>5. Company</li> <li>6. Trust</li> <li>7. Society</li> </ol> </li> <li>• MSME registration Process and revised classification</li> <li>• GST Registration</li> </ul>	1.5 Hr. Online interactive teaching + 30 min self-learning
Day - 2		
1	<b>Marketing &amp; Branding</b> <ul style="list-style-type: none"> <li>• Marketing</li> <li>• Marketing mix</li> <li>• Product mix &amp; Product line</li> <li>• Segmentation, Targeting, Positioning(STP)</li> <li>• Branding</li> </ul>	1.5 Hr. Online interactive teaching + 30 min self-learning
2	<b>New Product Development</b> <ul style="list-style-type: none"> <li>• New Product Development</li> <li>• Product Data Management</li> <li>• Product life cycle management</li> <li>• Digital Marketing</li> </ul>	1.5 Hr. Online interactive teaching + 30 min self-learning
3	<b>Understanding Financial Statements</b> <ul style="list-style-type: none"> <li>• Understanding Income statements</li> <li>• Balance sheet</li> <li>• Profit &amp; loss statements</li> </ul>	1.5 Hr. Online interactive teaching + 30 min self-learning
4	<b>DPR and Bank Credit</b> <ul style="list-style-type: none"> <li>• DPR</li> <li>• Types of bank finance</li> <li>• Assessment of credit facility</li> </ul>	1.5 Hr. Online interactive teaching + 30 min self-learning

	<ul style="list-style-type: none"> <li>• Financial information in DPR</li> <li>• Three financial statements(Income statements, cash flow statements, Balance sheet)</li> <li>• Three critical tests of financial health</li> <li>• Basic ratios for liquidity</li> <li>• Basic ratios for profitability</li> <li>• Ratios for solvency</li> <li>• Bank decision to sanction credit</li> <li>• Dealing with the bank (cash credit accounts, credit accounts)</li> </ul>	
<b>Day – 3</b>		
<b>1</b>	Digital Marketing skills for Business Development/Digital Marketing and Lead Generation for Micro Small Business/Digital Marketing in pursuit of value chain consolidation for small and micro business	1.5 Hr. Online interactive teaching
<b>2</b>	Incorporating a proprietorship, Partnership, Limited Liability partnership and private/Public Limited, Companies legal modalities.	1.5 Hr. Online interactive teaching
<b>3</b>	Hygiene, FSSAI standards and Registration etc. issues specific to food processing sector. Weights & Measures Regulation	1.0 Hr.

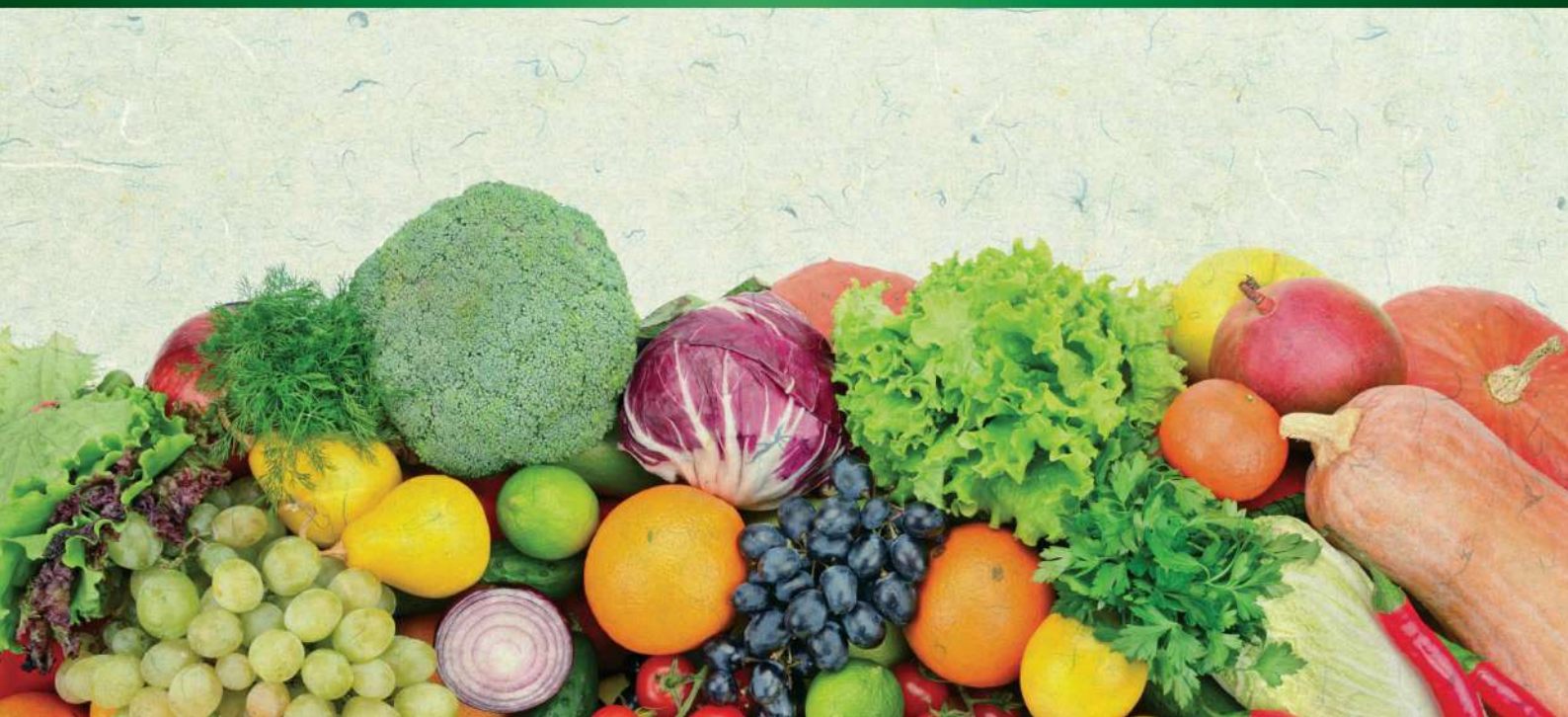
## COMPONENT 2: PLATFORM SKILLS

**Time allotted: Time allotted: 16 hours [12 hours of training and 4 hours of self-study]**

<b>Day - 3</b>			
Session	Topic	Lecture	Activity
1	Advance Facilitation Practice & Apply Principles of Professional Practice at Workplace.	<ul style="list-style-type: none"> <li>• Professional skill development using G Suite tools.</li> <li>• Personal and professional advancement.</li> </ul>	Performance and efficiency enhancement activity  Personal advancement form  Survey: Plan to enhance performance and efficiency
2	Evaluation of Training Programs	<ul style="list-style-type: none"> <li>• Execute the learnings to trainings.</li> <li>• 7 Habits of Great Trainers</li> <li>• Golden Badge Task</li> </ul>	Group Discussion  Read the article and mention how you plan to put into practice each of the Habit mentioned
3	Competency Based Assessment. Role of Technology and Analytics	<ul style="list-style-type: none"> <li>• Techniques for assessment Validation &amp; Reliability</li> <li>• Common Mistakes in Skill Training</li> <li>• How to conduct survey</li> <li>• Six principles to manage oneself</li> </ul>	Prepare own training calendar using google calendar and take a screenshot of your calendar. Upload the picture of your calendar on Workplace Group.
4	Assessment by FICSI		4 Hr.



**Syllabus for Training of New Trainers (ToTs)  
under PMFME Scheme**



## Training of New Trainer Syllabus

### 3.1 Fruits and Vegetable Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 64 hr/8 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 32 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of fruit and vegetable processing industry in India; Selection, Procurement and supply chain management of fruits and vegetables for processing industry; Imparting skills on various equipment's used for primary processing, cleaning, washing, sorting and handling, and its maintenance and precautions.	3	2
<b>Equipments and specifications of machineries in F&amp;V processing</b> Various methods of fruit and vegetable preservation: Minimal processing, blanching, canning, drying, dehydration, juice extraction, freezing and freeze-drying of fruits and vegetables. Equipment involved in unit operations of Fruits and Vegetables. Specifications of machineries involved in fruits and vegetables processing. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	4	3
<b>ODOP Specific Value addition of Fruits and Vegetables</b> General: Variety of fruit and Vegetable available in the district: Sugar conserves: Jams, jellies, marmalades. Beverages: Juices (carbonated and non-carbonated), squashes, syrups, nectars, RTS, crushes, cordial, fruit wine. Preparation of concentrates-puree, sauces, ketchups, soup, and paste. Preparation of pickles, and chutneys. Waste and byproducts utilization: pomace utilization, extraction and product developments from F&V wastes. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs based on above generalized F&V value addition. For example: Guava juice processing – sorting – washing – juice extraction – clarification of juice – fortification – homogenization – pasteurization – bottling – branding.	6	4
<b>Packaging of Fruits and Vegetable Products</b> Advances in packaging, different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of fruits and vegetables products. Selection of packaging materials standards for fruits and vegetable products. Recent packaging techniques to extend the shelf life of the Product-Aseptic packaging, tetra pack, convenient and smart packaging. Advances in storage of fruits and vegetables including low temperature, CA and MA storage.	4	2
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	3	1
<b>Platform Skills – 28 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices relevant to fruits and vegetable processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	8	4
<b>Soft skills and Communication</b> Importance of soft skills and communication - Networking skills–Idea generation, creative & innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneurs competencies – risk taking and goal settings - Effective communication skills- Knowledge on UPI and digital transaction.	10	6
Assessment by FICSI	4	-
Sub total	42	22
<b>Total: 64 hr</b>		

## Training of New Trainer Syllabus

### 3.2 Dairy Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 64 hr/8 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 32 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of dairy processing industry in India; Selection, Procurement and supply chain management of milk for dairy processing industry.	3	2
<b>Equipments and specifications of machineries in M&amp;P processing</b> Equipment involved in unit operations of Milk processing. Specifications of machineries involved in dairy industry. Selection and installation of storage tank, heat exchangers-chillers, pasteurizers, evaporators, plate heat exchangers; homogenizer; centrifuge; packaging machine. Refrigeration and chilling towers. Steam generation, supply and selection of boilers. Process control equipment and accessories for a complete milk processing plant. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program..	4	3
<b>ODOP Specific Processing and value addition of Milk</b> General: Processing of fluid milk- Chilling, standardization, homogenization, pasteurization, cream separation, and packing. Sensitization about types of processed fluid milk- standardized milk, toned, double toned and skimmed milk. Aseptic processing of milk. Manufacturing of Milk products- principle and procedures for preparation of curd, cream, butter, ghee, condensed milk, dried milk/milk products, ice-cream, khoa, paneer, cheese, buttermilk, skimmed milk powder, traditional Indian dairy products, novel isolated milk components – whey protein isolates, hydrolyzed whey protein, casein, lactose waste and by-products utilization. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Ice cream – blending – batch pasteurization – homogenization – addition of color and flavour – ageing – cooling – homogenization- batch freezing –packing – hardening.	6	4
<b>Packaging of Milk and Milk Products</b> Advances in packaging, different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of milk and milk products. Selection of packaging materials, standards for milk and milk products. Recent packaging techniques to extend the shelf life of the Product-Aseptic packaging, convenient and smart packaging. Advances in storage of milk and milk products.	4	2
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location – location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout –Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. PRP and OPRP Guidelines- Waste disposal – Sewage treatment.	3	1
<b>Platform Skills – 28 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices relevant to dairy processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure – Instant Adulteration Test Procedures and Safe Microbial load of Unprocessed milk.	8	4
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – confidence building – entrepreneur's competencies – risk taking and goal settings - effective communication skills.	10	6
Assessment by FICSI	4	-
Sub total	42	22
<b>Total: 64 hr</b>		

## Training of New Trainer Syllabus

### 3.3 Grain processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 64 hr/8 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 32 hr</b>		
<b>Introduction:</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status and Scope of grain processing; Preprocessing of cereals and pulses: drying, cleaning, grading and Detection of extraneous matter. Effect of different factors on various properties	3	2
<b>Equipments and specifications of machineries in Grain Processing</b> Equipment involved in unit operations of Grain processing. Specifications of machineries involved in Grain Processing industry. Selection and installation of Pre Cleaner – Rubber Roll Husker – Husk Aspiration- Paddy Separator – De Stoner – Abrasive Whitener – Friction Whitener – Sifter – Mist Polisher – length grader – Head Rice Bin – Bagging. sanitization of processing equipment's: objectives, frequency, procedures.	4	3
<b>ODOP Specific Processing and value addition of Grains</b> General: Variety of food grains available in the district: Corn processing: Production corn flour-wet milling and dry milling method, corn pops and quality evaluation of popped corn. Preparation corn syrup. Paddy processing: Parboiling and milling of paddy, aging of rice, Rice enrichment, Processed rice products. Pulse milling: Pre-treatment in dal milling like cleaning, grading, soaking, and drying. Milling pulses for production of dal, e.g. pigeon pea, green gram, Bengal gram. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Cereal-Based Snack Foods- and breakfast cereals Pasta and Noodle Products. Preparation of expanded & puffed rice from raw and parboiled materials. Extruded products	6	4
<b>Packaging of Grains and value added products</b> Advance in packaging, different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of grains and their value-added products. Selection of packaging materials and standards for grains and their value added products. Recent packaging techniques to extend the shelf life of the Product, MAP, hermetic packaging, convenient intelligent and smart packaging.	4	2
<b>Plant layout and maintenance for spices and plantation crops processing</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	3	1
<b>Platform Skills – 28 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices, Quality of Processed Grains as per the standards given in Food safety regulation on Standards in Section 2.4 (Cereal Products) and 2.4.6 (Food Grains), Safe storage temperature and Moisture content of Food Grains. HACCP implementation program. Regulations and standards for maintaining food safety and quality –BIS, FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	8	4
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneurs competencies – risk taking and goal settings - Effective communication skills.	10	6
Assessment by FICSI	4	-
Sub total	42	22
<b>Total: 64 hr</b>		

## Training of New Trainer Syllabus

### 3.4 Fish and Marine Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 64 hr/8 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 32 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of fish and marine food processing industry in India; Selection, Procurement and supply chain management of fish and marine food for processing industry.	3	2
<b>Equipments and specifications of machineries in F&amp;M processing</b> Equipment involved in unit operations of Fish and Marine food processing. Specifications of machineries involved in fish and marine food processing. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program. Equipments used in fish processing Units- Cold Storage for processing and Preservation, Fish Cutting Machine -Fish -De-scaling machine, Solar drying unit.	4	3
<b>Value addition of Fish and Marine</b> General: Variety of fish and marine products available in the district: Handling and preservation - salt curing and smoking – drying of fish - freezing preservation - freezing methods– Block Frozen, IQF and cooked forms. Minced products - surimi process – fish meal- fish oil. Ready to Cook Frozen Products, Fish Protein Isolate- Fermented Fish Sauce- Waste and by-products utilization. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Fish processing operations: receiving and quality checking – cleaning and scale removing – gutting / evisceration – washing – salting – processing – (cooking / oven drying / smoking / Frying).	6	4
<b>Packaging of Fish and Marine Products</b> Advance in packaging, different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of fish and marine products. Selection of packaging materials standards for fish and marine products. Recent packaging techniques to extend the shelf life of the Product-Aseptic packaging, convenient and smart packaging. Advances in storage of fish and marine products.	4	2
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	3	1
<b>Platform Skills – 28 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices relevant to fish and marine food processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality – FSSAI Regulation – 2.6.1 and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	8	4
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneurs competencies – risk taking and goal settings - Effective communication skills.	10	6
Assessment by FICSI	4	-
Sub total	42	22
<b>Total: 64 hr</b>		



## Training of New Trainer Syllabus

### 3.5 Meat and Poultry Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 64 hr/8 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 32 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of Meat and poultry processing industry in India; Selection, Procurement and supply chain management of meat and poultry for processing industry.	3	2
<b>Equipments and specifications of machineries in M&amp;P processing</b> Equipment involved in unit operations of Meat and Poultry processing. Specifications of machineries involved in meat and poultry processing. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	4	3
<b>Value addition of Meat and Poultry</b> General: Dried and smoked meat products. Comminuted meat products: sausages, semi dry sausages, dry sausages. Cured meat products. Restructured meat. Fried, Broiled, Roasted meat products. Braising and Stewing of meat products. Curries, bacon, ham, cutlet-mix, chicken-n-ham and salami. Egg powder production, uses of egg powder in bakery and confectionary, noodles and pasta, mayonnaise and salad dressings. Waste and by-products utilization. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Processing line for poultry industry – shackling – stunning – bleeding – scalding – picking – evisceration – washing – chilling- cut bone deboning – cold storage.	6	4
<b>Packaging of Meat and Poultry Products</b> Advances in packaging, different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of meat and poultry products. Selection of packaging materials standards for meat and poultry products. Recent packaging techniques to extend the shelf life of the Product-Aseptic packaging, convenient and smart packaging. Advances in storage of meat and poultry products	4	2
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location – location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout –Modern Abattoirs – Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. Implementation of HACCP Plan (PRP-OPRP-CCP) for Meat industry	3	1
<b>Platform Skills – 28 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices relevant to meat and poultry processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality – FSSAI (Regulation – 2.5.1 – 2.5.3) and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	8	4
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneurs competencies – risk taking and goal settings - Effective communication skills.	10	6
Assessment by FICSI	4	-
Sub total	42	22
<b>Total: 64 hr</b>		

## Training of New Trainer Syllabus

### 3.6 Bakery and Confectionery Products

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 64 hr/8 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 32 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and scope of bakery and confectionery industries in India- Raw materials for bakery and confectionery products specifications, compositions, role of raw materials - flour, types of flour, quality assessment of flour, sugar, shortenings, leavening agents, egg, salt, water, moistening agent, cocoa products, fruits, nuts, improvers, flavouring and colouring agents.	3	2
<b>Equipments and specifications of machineries in Bakery and confectionery processing</b> Identification and selection of bakery and confectionary equipments-weighing equipment- manual scale, Automatic weigh, liquid measuring. Mixing- blenders, horizontal and vertical planetary, continuous. Make up equipment, divider, rounder, proofer, moulder. Baking equipment – different oven, slicer. Confectionary products machines.	4	3
<b>Value addition of Bakery and Confectionery products</b> Bread making- methods- specification for various types of breads- Manufacturing process of biscuit, cookies- Crackers- Buns- preservation of bakery products. Frozen bakery products. Production of chocolate, fondant, caramels, fudge and toffee and Cakes and pastries ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Processing line for bread making: mixing of ingredients – dough mixing – kneading/rounding- proofing – baking – cooling – slicing – packing.	6	4
<b>Packaging of Bakery Products</b> Advance in packaging, different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of bakery products. Selection of packaging materials (flexible and Rigid packing). Recent packaging techniques to extend the shelf life of the products.	4	2
<b>Plant layout and maintenance for bakery Product Processing</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	3	1
<b>Platform Skills –28 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices, HACCP implementation program. Regulations and standards for maintaining food safety and quality, Standards Fssai for Bakery Products 2.4.15 –BIS, FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	8	4
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneur’s competencies – risk taking and goal settings - Effective communication skills.	10	6
Assessment by FICSI	4	-
Sub total	42	22
<b>Total: 64 hr</b>		

## Training of New Trainer Syllabus

### 3.7 Fat and oil seed processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 64 hr/8 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 32 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of fats and oil seed processing industry in India; Selection, Procurement and supply chain management of fats and oil seed for processing industry.	3	2
<b>Equipments and specifications of machineries in fats and oil seed processing</b> Equipment involved in unit operations of Fats and oil seed processing. Specifications of machineries involved in fats and oil seed processing. By product utilization Plant and value addition and market scope. Traditional Cold Press and Virgin oil Processing CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	4	3
<b>Value addition and Processing of fats and oil seeds</b> Milk and animal fats: Production, characteristics, composition, processing and utilization of milk fats and butter, animal fats such as lard and tallow, fish and marine oils. General: Variety of Nuts and oil seeds available in the district: Edible oil sources: Coconut, palm, palm kernel, olive, cocoa butter, sunflower, safflower, sesame, groundnut, mustard, rapeseed, canola, soybean, linseed, castor, rice-bran and cottonseed. Processing of oils seeds and Refining of oil. By product utilization of oil milling industries. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Oil processing line – selection of quality oil seeds- crushing – crude oil extraction – degumming – de-acidification – de-colorization – de-odorizing – refined edible oil.	6	4
<b>Packaging of fats and oils</b> Advance in packaging, requirements, different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of fats and edible oils. Selection of packaging materials standards for Fats and oils. Advances in storage of fats and oils. - changes during storage –rancidity – causes – atmospheric oxidation and enzyme action – free fatty acid – color.	4	2
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. Waste Treatment Plant Operation Management, Safe disposal of Plant Waste.	3	1
<b>Platform Skills – 28 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. Concept of quality assurance and quality control in relation to fat and oil industry; quality management systems - ISO 9000; TQM, HACCP, GMP, GHP, GLP relevant to fat and oilseed processing; role of International organizations- ISO, IDF, CAC, AOAC and WTO, National organizations - BIS, Agmark; significance of oil and allied products order, FSSAI Standards (2.2.1 to 2.2.24) and APEDA in oil industry; guidelines for setting up quality control laboratory. Legislation on fats and oils, packaging laws and testing of packaged materials.	8	4
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative & innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneurs competencies – risk taking and goal settings - Effective communication skills.	10	6
Assessment by FICSI	4	-
Sub total	42	22
<b>Total: 64 hr</b>		

## Training of New Trainer Syllabus

### 3.8 Spices and Plantation crops processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 64 hr/8 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 32 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of spices and plantation crop processing industry in India; Selection, Procurement and supply chain management of spices and plantation crop for processing industry.	3	2
<b>Equipments and specifications of machineries in spices and plantation crop processing</b> Different unit operations pertaining to spices and plantation crops processing. Equipment involved in unit operations of different spices and plantation crop processing. Specifications of machineries involved in spices and plantation crop processing. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	4	3
<b>Value addition of spices and plantation crops</b> General: Variety of Spices and plantation crops available in the district: Spices: Extracts-Essential oils, oleoresin, flavor and natural color and pigments. Preparation of powders, dried spices and condiments, Curry mixes, Curry Paste, dehydrated products. Pepper- dehydrated green pepper, white pepper and canned pepper. Ginger- wine, ginger preserve. Turmeric – curcumin Processing. Chillies – brined chilli, pickle and sauce preparation. Waste and by-products utilization. Plantation crops: Coconut – processing of coconut milk, milk powder, coconut cream, coconut sugar, processed tender coconut water, Coconut Cream, coconut Vinegar, coconut oil extraction, virgin coconut oil, activated carbon and husk, coir dust, Organic fertilizer, Cashew – Nut processing, Cashew apple juice preparation. Cocoa – cocoa butter processing. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example, Spice processing line – quality Check for all Raw materials – Sorting and Removal of foreign material – Washing – Drying – Weighing - Roasting – cooling – Pulverizing – Blending – packing. Cashew processing – Dehydration of Cashew Seeds – Steam Roasting – Shell Cutting – Peeling – Grading – Packing.	6	4
<b>Packaging of spices and plantation crop Products</b> Advance in packaging, different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of spices and plantation crop and their value-added products. Selection of packaging materials and standards for spices and plantation crop products. Recent packaging techniques to extend the shelf life of the Product such as oil, oleoresin, coconut milk, preserve and juices. Technologies - Aseptic packaging, tetra pack, MAP, hermetic packaging, convenient intelligent and smart packaging. Advances in storage of spices and plantation crops.	4	2
<b>Plant layout and maintenance for spices and plantation crops processing</b> Introduction to food plant design - plant location - location factors, site selection - layout - objectives, classical and practical layout – preparation of process chart and machinery layout – product layout and process layout - Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment.	3	1
<b>Platform Skills – 28 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices, ASTA standards for clean spices and CODEX national and international standards relevant to Black pepper, cardamom, turmeric, ginger, tamarind, curry leaf and coriander in spices and tea, coffee, cocoa, cashew, rubber in plantation crops. HACCP implementation program. Regulations and standards for maintaining food safety and quality –BIS, FSSAI Standards (Spices 2.9 – Tea and Coffee- 2.10) and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	8	4
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills-creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneur's competencies – risk taking and goal settings - Effective communication skills.	10	6
Assessment by FICSI	4	-
Sub total	42	22
<b>Total: 64 hr</b>		

## Training of New Trainer Syllabus

### 3.9 Minor Forest Produce Processing

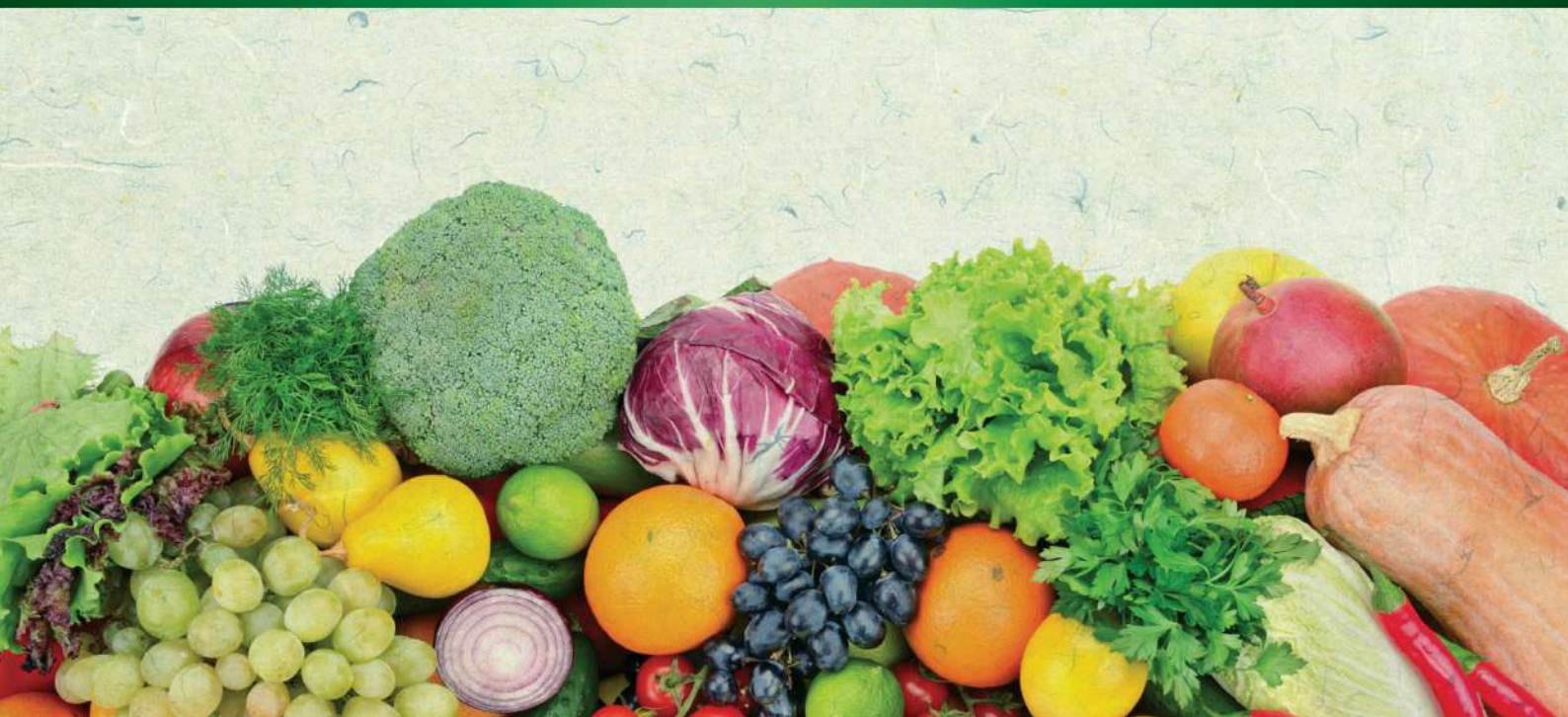
Technical Aspects: Processing, Value addition, Trading, Machinery, Packaging and Storage, Procurement, Food safety regulations & certification.

**Training Time: 68 hr/8 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 32 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status and Scope of minor forest produce (MFP); Types of minor forest produce under different categories – medicinal, essential oils. Edible wild plants, gums, resins, natural coloring materials, Exotic Spices (king chili) etc.	3	2
<b>Equipments and specifications of machineries in Minor Forest Produce</b> Equipment involved in collection of minor forest produce. Specifications of machineries involved in processing of different minor forest produce. CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	4	3
<b>Value addition of Minor Forest Produce</b> General: Variety of Honey, mushroom and other forest produce available in the district: Sugar conserves: Jams, jellies, toffee. Beverages: Juices, squashes, syrups, nectars, RTS. Preparation of concentrates-puree, soup, and paste. Preparation of pickles, and chutneys. Medicinal & aromatic products. Traditional Herbals –Preparation of Herbal Tea, Wild Honey – Preparation of herbal infused honey- garlic honey, Cinnamon Honey. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Flavored Honey Processing: Raw honey – screening – filtering – addition of herbs/ spices - pasteurization – cooling – filling – packing – storing – labeling – branding.	6	4
<b>Packaging of Minor Forest Products</b> Different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of MFP & their value added products. Selection of packaging materials standards for minor forest produce. Recent packaging techniques to extend the shelf life of the Product. Storage of value added products from minor forest produce.	4	2
<b>Collection &amp; Trading of Minor Forest Produce</b> Significance in tribal economy–Sustainable cultivation &Collection Methods, Mechanism of Marketing of Minor Forest Produce – Minimum support price- Promotion	3	1
<b>Platform Skills – 28 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices relevant to minor forest produce. Indian forest Act, Status of certification of Non Timber Forest Products (NFTP). FSSAI registration and licensing procedure.	8	4
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneur's competencies – risk taking and goal settings - Effective communication skills. New Market Platforms – Online Marketing,	10	6
Assessment by FICSI	4	-
Sub total	42	22
<b>Total: 64 hr</b>		



**Syllabus for Training of Existing Trainers (ToTs)  
under PMFME Scheme**



## Training of Existing Trainer Syllabus

### 4.1 Fruits and Vegetable Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 16 hr/2 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 8 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines	1	0
<b>ODOP Specific Value addition of Fruits and Vegetables</b> General: Variety of fruit and Vegetable available in the district: Sugar conserves: Jams, jellies, marmalades. Beverages: Juices (carbonated and non-carbonated), squashes, syrups, nectars, RTS, crushes, cordial, fruit wine. Preparation of concentrates-puree, sauces, ketchups, soup, and paste. Preparation of pickles, and chutneys. Waste and by-products utilization: pomace utilization, extraction and product developments from F&V wastes. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs based on above generalized F&V value addition. For example: Guava juice processing – sorting –washing – juice extraction – clarification of juice – fortification – homogenization – pasteurization – bottling – branding.	4	3
<b>Platform Skills – 4 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices relevant to fruits and vegetable processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	2	0
<b>Soft skills and Communication</b> Importance of soft skills and communication - Networking skills–Idea generation, creative & innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneurs competencies – risk taking and goal settings - Effective communication skills- Knowledge on UPI and digital transaction.	2	0
Assessment by FICSI	4	
Sub total	13	3
<b>Total: 16 hr</b>		

## Training of Existing Trainer Syllabus

### 4.2 Dairy Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 16 hr/2days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 8 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines	1	0
<b>ODOP Specific Processing and value addition of Milk</b> General: Processing of fluid milk- Chilling, standardization, homogenization, pasteurization, cream separation, and packing. Sensitization about types of processed fluid milk- standardized milk, toned, double toned and skimmed milk. Aseptic processing of milk. Manufacturing of Milk products- principle and procedures for preparation of curd, cream, butter, ghee, condensed milk, dried milk/milk products, ice-cream, khoa, paneer, cheese, buttermilk, skimmed milk powder, traditional Indian dairy products, novel isolated milk components – whey protein isolates, hydrolyzed whey protein, casein, lactose waste and byproducts utilization. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Ice cream – blending – batch pasteurization – homogenization – addition of color and flavor – ageing – cooling – homogenization- batch freezing –packing – hardening.	4	3
<b>Platform Skills – 4 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices relevant to dairy processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure – Instant Adulteration Test Procedures and Safe Microbial load of Unprocessed milk.	2	0
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – confidence building – entrepreneur’s competencies – risk taking and goal settings - effective communication skills.	2	0
Assessment by FICSI	4	-
Sub total	13	3
<b>Total: 16 hr</b>		



## Training of Existing Trainer Syllabus

### 4.3 Grain processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

Training Time: 16 hr/2 days (Online + Offline)

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 8 hr</b>		
<b>Introduction:</b> Overview of PMFME scheme, guidelines,	1	0
<b>ODOP Specific Processing and value addition of Grains</b> General: Variety of food grains available in the district: Corn processing: Production corn flour-wet milling and dry milling method, corn pops and quality evaluation of popped corn. Preparation corn syrup. Paddy processing: Parboiling and milling of paddy, aging of rice, Rice enrichment, Processed rice products. Pulse milling: Pre-treatment in dal milling like cleaning, grading, soaking, and drying. Milling pulses for production of dal, e.g. pigeon pea, green gram, Bengal gram. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Cereal-Based Snack Foods- and breakfast cereals Pasta and Noodle Products. Preparation of expanded & puffed rice from raw and parboiled materials. Extruded products	4	3
<b>Platform Skills – 4 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices, Quality of Processed Grains as per the standards given in Food safety regulation on Standards in Section 2.4 (Cereal Products) and 2.4.6 (Food Grains), Safe storage temperature and Moisture content of Food Grains. HACCP implementation program. Regulations and standards for maintaining food safety and quality –BIS, FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	2	0
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills-creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneurs competencies – risk taking and goal settings - Effective communication skills.	2	0
Assessment by FICSI	4	-
Sub total	13	3
<b>Total: 16 hr</b>		

## Training of Existing Trainer Syllabus

### 4.4 Fish and Marine Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 16 hr/2days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills –8 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines.	1	0
<b>Value addition of Fish and Marine</b> General: Variety of fish and marine products available in the district: Handling and preservation - salt curing and smoking – drying of fish - freezing preservation - freezing methods– Block Frozen, IQF and cooked forms. Minced products - surimi process – fish meal- fish oil. Ready to Cook Frozen Products, Fish Protein Isolate- Fermented Fish Sauce- Waste and byproducts utilization. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Fish processing operations: receiving and quality checking – cleaning and scale removing – gutting / evisceration – washing – salting – processing – (cooking / oven drying / smoking / Frying).	4	3
<b>Platform Skills – 4 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices relevant to fish and marine food processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality – FSSAI Regulation – 2.6.1 and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	2	0
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneurs competencies – risk taking and goal settings - Effective communication skills.	2	0
Assessment by FICSI	4	-
Sub total	13	3
<b>Total: 16 hr</b>		

## Training of Existing Trainer Syllabus

### 4.5 Meat and Poultry Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 16 hr/2days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 8 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines	1	0
<b>Value addition of Meat and Poultry</b> General: Dried and smoked meat products. Comminuted meat products: sausages, semi dry sausages, dry sausages. Cured meat products. Restructured meat. Fried, Broiled, Roasted meat products. Braising and Stewing of meat products. Curries, bacon, ham, cutlet-mix, chicken-n-ham and salami. Egg powder production, uses of egg powder in bakery and confectionary, noodles and pasta, mayonnaise and salad dressings. Waste and byproducts utilization. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Processing line for poultry industry – shackling – stunning – bleeding – scalding – picking – evisceration – washing – chilling- cut bone deboning – cold storage.	4	3
<b>Platform Skills – 4 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices relevant to meat and poultry processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality – FSSAI (Regulation – 2.5.1 – 2.5.3) and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	2	0
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneurs competencies – risk taking and goal settings - Effective communication skills.	2	0
Assessment by FICSI	4	-
Sub total	13	3
<b>Total: 16 hr</b>		

## Training of Existing Trainer Syllabus

### 4.6 Bakery and Confectionery Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 16 hr/2 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 8 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines.	1	0
<b>Value addition of Bakery and Confectionery products</b> Bread making- methods- specification for various types of breads- Manufacturing process of biscuit, cookies- Crackers- Buns- preservation of bakery products. Frozen bakery products. Production of chocolate, fondant, caramels, fudge and toffee and Cakes and pastries ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Processing line for bread making: mixing of ingredients – dough mixing – kneading/rounding- proofing – baking – cooling – slicing – packing.	4	3
<b>Platform Skills –4 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices, HACCP implementation program. Regulations and standards for maintaining food safety and quality, Standards Fssai for Bakery Products 2.4.15 –BIS, FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	2	0
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneur’s competencies – risk taking and goal settings - Effective communication skills.	2	0
Assessment by FICSI	4	-
Sub total	13	3
<b>Total: 16 hr</b>		

## Training of Existing Trainer Syllabus

### 4.7 Fat and oil seed processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 16 hr/2 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 8 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines	1	0
<b>Value addition and Processing of fats and oil seeds</b> Milk and animal fats: Production, characteristics, composition, processing and utilization of milk fats and butter, animal fats such as lard and tallow, fish and marine oils. General: Variety of Nuts and oil seeds available in the district: Edible oil sources: Coconut, palm, palm kernel, olive, cocoa butter, sunflower, safflower, sesame, groundnut, mustard, rapeseed, canola, soybean, linseed, castor, rice-bran and cottonseed. Processing of oils seeds and Refining of oil. By product utilization of oil milling industries. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Oil processing line – selection of quality oil seeds- crushing – crude oil extraction – degumming – de-acidification – de-colorization – de-odorizing – refined edible oil.	4	3
<b>Platform Skills – 4 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. Concept of quality assurance and quality control in relation to fat and oil industry; quality management systems - ISO 9000; TQM, HACCP, GMP, GHP, GLP relevant to fat and oilseed processing; role of International organizations- ISO, IDF, CAC, AOAC and WTO, National organizations - BIS, Agmark; significance of oil and allied products order, FSSAI Standards (2.2.1 to 2.2.24) and APEDA in oil industry; guidelines for setting up quality control laboratory. Legislation on fats and oils, packaging laws and testing of packaged materials.	2	0
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneur’s competencies – risk taking and goal settings - Effective communication skills.	2	0
Assessment by FICSI	4	-
Sub total	13	3
<b>Total: 16 hr</b>		

## Training of Existing Trainer Syllabus

### 4.8 Spices and Plantation crops processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 16 hr/2 days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 8 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines.	1	0
<b>Value addition of spices and plantation crops</b> General: Variety of Spices and plantation crops available in the district: Spices: Extracts-Essential oils, oleoresin, flavor and natural color and pigments. Preparation of powders, dried spices and condiments, Curry mixes, Curry Paste, dehydrated products. Pepper- dehydrated green pepper, white pepper and canned pepper. Ginger- wine, ginger preserve. Turmeric – curcumin Processing. Chillies – brined chilli, pickle and sauce preparation. Waste and byproducts utilization. Plantation crops: Coconut – processing of coconut milk, milk powder, coconut cream, coconut sugar, processed tender coconut water, Coconut Cream, coconut Vinegar, coconut oil extraction, virgin coconut oil, activated carbon and husk, coir dust, Organic fertilizer, Cashew – Nut processing, Cashew apple juice preparation. Cocoa – cocoa butter processing. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example, Spice processing line – quality Check for all Raw materials – Sorting and Removal of foreign material – Washing – Drying – Weighing - Roasting – cooling – Pulverizing – Blending – packing. Cashew processing – Dehydration of Cashew Seeds – Steam Roasting – Shell Cutting – Peeling – Grading – Packing.	4	3
<b>Platform Skills – 4 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices, ASTA standards for clean spices and CODEX national and international standards relevant to Black pepper, cardamom, turmeric, ginger, tamarind, curry leaf and coriander in spices and tea, coffee, cocoa, cashew, rubber in plantation crops. HACCP implementation program. Regulations and standards for maintaining food safety and quality –BIS, FSSAI Standards (Spices 2.9 – Tea and Coffee- 2.10) and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	2	0
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneur’s competencies – risk taking and goal settings - Effective communication skills.	2	0
Assessment by FICSI	4	-
Sub total	13	3
<b>Total: 16 hr</b>		

## Training of Existing Trainer Syllabus

### 4.9 Minor Forest Produce Processing

Technical Aspects: Processing, Value addition, Trading, Machinery, Packaging and Storage, Procurement, Food safety regulations & certification.

**Training Time: 16 hr/2days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 8 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines.	1	0
<b>Value addition of Minor Forest Produce</b> General: Variety of Honey, mushroom and other forest produce available in the district: Sugar conserves: Jams, jellies, toffee. Beverages: Juices, squashes, syrups, nectars, RTS. Preparation of concentrates-puree, soup, and paste. Preparation of pickles, and chutneys. Medicinal & aromatic products. Traditional Herbals –Preparation of Herbal Tea, Wild Honey – Preparation of herbal infused honey- garlic honey, Cinnamon Honey. ODOP: Beneficiaries/micro entrepreneurs will be trained on their district specific ODOP by DLTs. For example: Flavored Honey Processing: Raw honey – screening – filtering – addition of herbs/ spices - pasteurization – cooling – filling – packing – storing – labeling – branding.	4	3
<b>Platform Skills –4 hr</b>		
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, Referral Labs and Reference Labs in India. GMP, GHP, GLP practices relevant to minor forest produce. Indian forest Act, Status of certification of Non Timber Forest Products (NFTP). FSSAI registration and licensing procedure.	2	0
<b>Soft skills and Communication</b> Importance of soft skills and communication -Networking skills–creative& innovative thinking – problem management – stress and emotional management – leadership and teaming up – Confidence building – entrepreneur’s competencies – risk taking and goal settings - Effective communication skills. New Market Platforms – Online Marketing,	2	0
Assessment by FICSI	4	
Sub total	13	3
<b>Total: 16 hr</b>		



**EDP Training Syllabus for  
Training of New Trainers (ToTs)  
under PMFME Scheme**





## EDP TRAINING CURRICULUM FOR TRAINING OF TRAINERS (NEW TRAINERS) UNDER PMFME SCHEME

### COMPONENT 1: DOMAIN SKILLS

#### CURRICULUM:

**Time allotted: 32 hours spread over 4 days**

Module	Topic	Learning objective	Learning outcome	Duration
<b>Day – 1</b>				
1	Entrepreneurship & its features  Business Opportunity Identification	Benefits of entrepreneurship, key personal attributes, Concept of ideation Sources of new ideas Recognizing Entrepreneurial Opportunities Choosing a right business	Learn about the value proposition of entrepreneurship.  Ability to identify gaps in the market, understand competition	3 hours
2	Conducting market survey & preparing a feasibility report	Tools, Techniques and guidelines for a market survey & how to evaluate feasibility of product/ services	Learn about conducting Market Survey and Product Feasibility Studies through various techniques	3 hours
3	Legal Aspects of Business and Creation of enterprise	Types of business organizations- Characteristics and legal formation Incorporating a proprietorship, partnership, Limited Liability Partnership and private/public limited companies,	Learn about various forms of organization and regulatory compliances for a new business	2 hours
<b>Day – 2</b>				
1	IPR issues for entrepreneurs	Different forms of Intellectual Property Rights (IPRs) pertaining to entrepreneurs including patents, copyrights, trademarks, geographical indications.	Learn about various types of IPRs and their significance	3 hours
2	Legal compliances for Business	MSME, GST registration, Tax compliances, Invoices and Orders, Legal modalities, Bank accounts	Learn about legal basic compliances for new businesses.	3 hours
3	Digital Media	Digital Marketing platforms, Significance of digital media and marketing techniques	Learn about digital marketing and social media marketing strategies	2 hours
<b>Day – 3</b>				
1	Marketing and branding	Marketing Concept, Ps of marketing, STP, Branding	Learn how to market products – components of marketing, Branding- importance and process	3 hours
2	Product Development	New Product Development, Product data and life cycle management	Learn about New Product development process and product life cycle.	3 hours
3	Case and/or Success stories	Case and/or Success stories related to micro enterprises/SHGs/FPOs/ FPCs and farmer cooperatives (in Indian Context)	Learnings from real life cases	2 hours
<b>Day – 4</b>				
1	Financial Aspects of Business	Understanding Financial statements	Learn about importance of preparing financial statements, the Income Statement and Balance Sheet components.	3 hours
2	DPR Essentials and Availing Bank Credit	Significance and contents of DPR, Bank Credit Basics	Learn About importance of preparing a DPR, key ratios in DPR and credit facilities available at Banks	3 hours
3	Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector.	GMP, GHP, FSSAI standards and registration, PRP, OPRP, CCP, Weights & Measures and validation for the same. Cases on trending issues in food processing sector	Awareness about the schedule 4 and other relevant regulations of FSSAI	2 hours

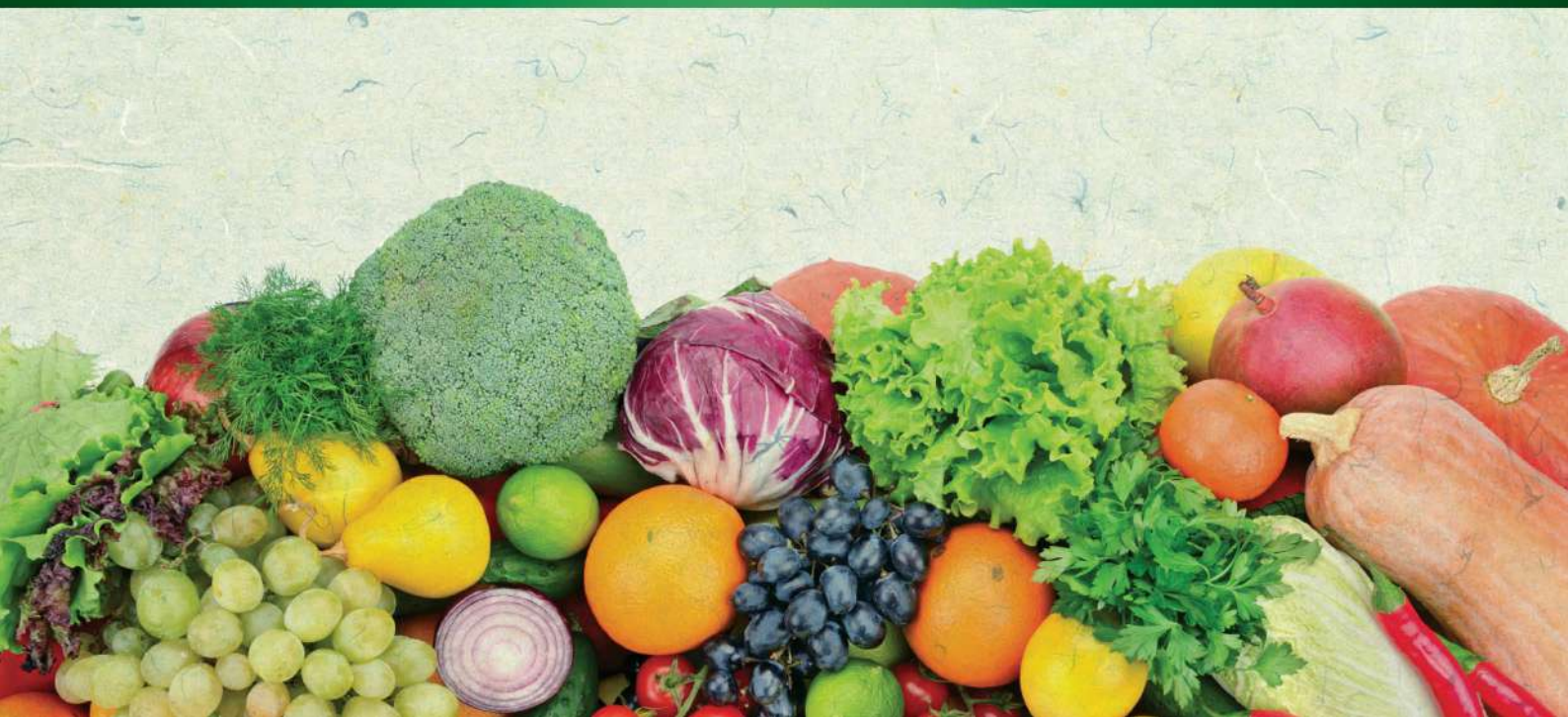
## COMPONENT 2: PLATFORM SKILLS

Time allotted: 32 hours

Session	Topic	Lecture	Activity	Duration
1	Facilitating learning of work skills on-the-job or in a simulated work environment.	<ul style="list-style-type: none"> <li>Professional skill development using G Suite tools.</li> <li>Personal and professional advancement.</li> </ul>	<p>Performance and efficiency enhancement activity</p> <p>Personal advancement form.</p> <p>Survey: Plan to enhance performance and efficiency</p> <p>Group Discussion</p>	8 hours per session
2	Training Methodology	<ul style="list-style-type: none"> <li>Champion Task</li> <li>Execute the learnings to trainings.</li> <li>7 Habits of Great Trainers</li> </ul>	<p>Read the article and mention how you plan to put into practice each of the Habit mentioned</p>	
3	<p>Evaluation of Training and learning outcomes</p> <p>Undertaking assessment of competence as per required standards</p>	<ul style="list-style-type: none"> <li>Golden Badge Task</li> <li>Techniques for assessment Validation &amp; Reliability</li> <li>Common Mistakes in Skill Training</li> <li>Survey: Six principles in the video to manage oneself</li> </ul>	<p>Prepare own training calendar using google calendar and take a screenshot of your calendar. Upload the picture of your calendar on Workplace Group.</p>	
4	Role of Technology in training and Analytics Delivering competency based, instructor-led training sessions as per session plan	<ul style="list-style-type: none"> <li>Demonstrating work skills on-the-job or in a simulated work environment.</li> </ul>		



**EDP Training Syllabus for  
Training of Existing Trainers (ToTs)  
under PMFME Scheme**



## EDP TRAINING CURRICULUM FOR TRAINING OF TRAINERS (EXISTING TRAINERS) UNDER PMFME SCHEME

### COMPONENT 1: DOMAIN SKILLS

#### CURRICULUM:

**Time allotted: 8 hours**

Module	Topic	Learning objective	Learning outcome	Duration
<b>Day – 1</b>				
1	Entrepreneurship & its features  Business Opportunity Identification	Benefits of entrepreneurship, key personal attributes, Concept of ideation Sources of new ideas Recognizing Entrepreneurial Opportunities Choosing a right business	Learn about the value proposition of entrepreneurship.  Ability to identify gaps in the market, understand competition	45 min
2	Conducting market survey & preparing a feasibility report	Tools, Techniques and guidelines for a market survey & how to evaluate feasibility of product/ services	Learn about conducting Market Survey and Product Feasibility Studies through various techniques	45 min
3	Legal Aspects of Business and Creation of enterprise	Types of business organizations- Characteristics and legal formation Incorporating a proprietorship, partnership, Limited Liability Partnership and private/public limited companies,	Learn about various forms of organization and regulatory compliances for a new business	30 min
4	IPR issues for entrepreneurs	Different forms of Intellectual Property Rights (IPRs) pertaining to entrepreneurs including patents, copyrights, trademarks, geographical indications.	Learn about various types of IPRs and their significance	45 min
5	Legal compliances for Business	MSME, GST registration, Tax compliances, Invoices and Orders, Legal modalities, Bank accounts	Learn about legal basic compliances for new businesses.	45 min
6	Digital Media	Digital Marketing platforms, Significance of digital media and marketing techniques	Learn about digital marketing and social media marketing strategies	30 min
7	Marketing and branding	Marketing Concept, Ps of marketing, STP, Branding	Learn how to market products – components of marketing, Branding- importance and process	45 min
8	Product Development	New Product Development, Product data and life cycle management	Learn about New Product development process and product life cycle.	45 min
9	Financial Aspects of Business	Understanding Financial statements	Learn about importance of preparing financial statements, the Income Statement and Balance Sheet components.	45 min
10	DPR Essentials and Availing Bank Credit	Significance and contents of DPR, Bank Credit Basics	Learn About importance of preparing a DPR, key ratios in DPR and credit facilities available at Banks	45 min
11	Case and/or Success stories	Case and/or Success stories related to micro enterprises/SHGs/FPOs/ FPCs and farmer cooperatives (in Indian Context)	Learnings from real life cases	30 min
12	Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector.	GMP, GHP, FSSAI standards and registration, PRP, OPRP, CCP, Weights & Measures and validation for the same. Cases on trending issues in food processing sector	Awareness about the schedule 4 and other relevant regulations of FSSAI	30 min

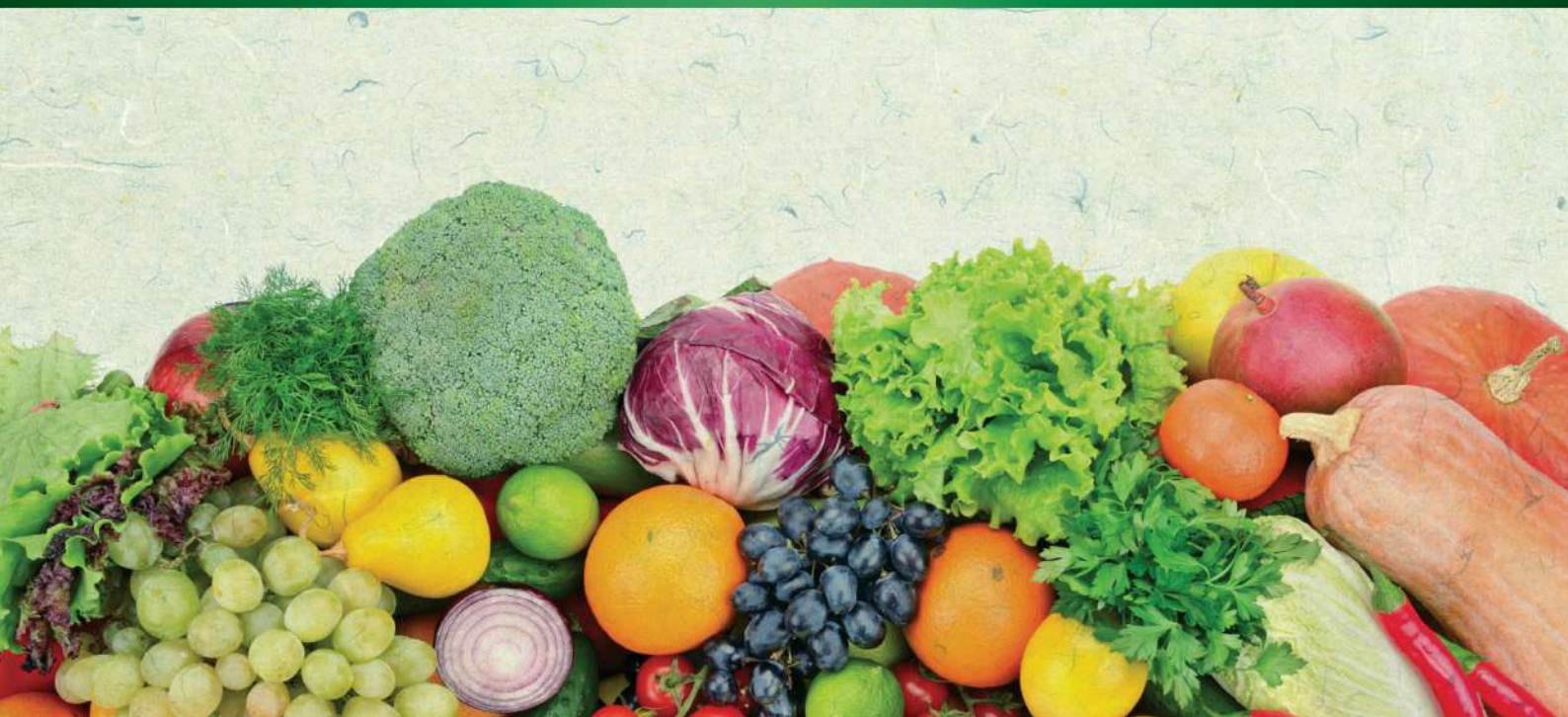
## COMPONENT 2: PLATFORM SKILLS

Time allotted: 8 hours

Session	Topic	Lecture	Activity	Duration
1	Facilitating learning of work skills on-the-job or in a simulated work environment.	<ul style="list-style-type: none"> <li>Professional skill development using G Suite tools.</li> <li>Personal and professional advancement.</li> </ul>	<p>Performance and efficiency enhancement activity</p> <p>Personal advancement form.</p> <p>Survey: Plan to enhance performance and efficiency</p> <p>Group Discussion</p>	2 hours per session
2	Training Methodology	<ul style="list-style-type: none"> <li>Champion Task</li> <li>Execute the learnings to trainings.</li> <li>7 Habits of Great Trainers</li> </ul>	<p>Read the article and mention how you plan to put into practice each of the Habit mentioned</p>	
3	<p>Evaluation of Training and learning outcomes</p> <p>Undertaking assessment of competence as per required standards</p>	<ul style="list-style-type: none"> <li>Golden Badge Task</li> <li>Techniques for assessment Validation &amp; Reliability</li> <li>Common Mistakes in Skill Training</li> <li>Survey: Six principles in the video to manage oneself</li> </ul>	<p>Prepare own training calendar using google calendar and take a screenshot of your calendar. Upload the picture of your calendar on Workplace Group.</p>	
4	Role of Technology in training and Analytics Delivering competency based, instructor-led training sessions as per session plan	<ul style="list-style-type: none"> <li>Demonstrating work skills on-the-job or in a simulated work environment.</li> </ul>		



**Syllabus for Training of  
Existing Beneficiaries under PMFME Scheme**



## Training of Beneficiary (ToBs) Syllabus – Food Domain and EDP for (Existing Entrepreneurs)

### 7.1 Fruits and Vegetable Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 50 hr/ days (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 25 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and scope of fruit and vegetable processing industry in India; Selection, procurement and supply chain management of fruits and vegetables specific to ODOP for processing industry; Imparting skills on various equipment's used for primary processing, cleaning, washing, sorting and handling, and its maintenance and precautions.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection- layout -repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Equipment and specifications of machineries in F&amp;V processing</b> Various methods of fruit and vegetable preservation Specific to ODOP: Minimal processing, Equipment and specification involved in unit operations of fruits and vegetables. Cleaning & sanitization of processing equipment.	2	1
<b>Value addition (It can be modified to specific ODOP by the DLT'S)</b> <b>Tomato as example is given below:</b> <b>List of value-added products can be made out of tomato:</b> <ol style="list-style-type: none"> <li>1. Preparation and processing of concentrates-puree, sauces, ketchups, soup, and paste.</li> <li>2. Preparation and processing of pickles, and chutneys.</li> <li>3. Preparation and processing of dehydrated tomato, tomato powder.</li> </ol> <b>Example: Processing of tomato sauce:</b> Detailed standard operating procedure and processing steps – grading – washing – pulping- filtering – mixing of additives – concentrate- bottling- pasteurization- cooling – storage. Product formula, processing steps, additives, preservatives used in tomato processing. Quality parameters for raw material, semi-finished, and finished products. Tomato waste and byproducts utilization <b>Training material to be translated as per the local language of the beneficiaries</b>	4	8
<b>Packaging of fruits and vegetable products</b> Advances in packaging, different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of fruits and vegetables products with respect to ODOP. Brief of food grade packing material and regulations. Selection of packaging materials standards for fruits and vegetable products specific to ODOP. Nutritional label requirements for specific ODOP as per FSSAI standards. Recent packaging techniques to extend the shelf life of the Product-Aseptic packaging, tetra pack, convenient and smart packaging. Advances in storage of fruits and vegetables including low temperature, CA and MA storage.	3	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to fruits and vegetable processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	3	1
<b>Entrepreneurship Development Program – 21 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
*Assessment by FICSI	4	-
Sub total	32	18
*if required	<b>Total: 50 hr</b>	

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (Existing Entrepreneurs)

### 7.2 Dairy Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 50 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 25 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of dairy processing industry in India; Selection, Procurement and supply chain management of milk for dairy processing industry.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location – location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. PRP and OPRP guidelines- Waste disposal – sewage treatment. <b>Equipment’s and specifications of machineries in processing</b> Equipment and specification involved in unit operations of milk processing. Process control equipment and accessories for a complete milk processing plant.CIP: Cleaning & sanitization of processing equipment’s	2	1
<b>Processing and value addition of Milk</b> Processing of fluid milk- chilling, standardization, homogenization, pasteurization, cream separation, and packing. Sensitization about types of processed fluid milk- standardized milk, toned, double toned and skimmed milk. Aseptic processing of milk. <b>Value addition (It can be modified to specific ODOP by the DLT’S)</b> <b>Milk</b> – as an example: Standardized milk, flavored milk, paneer, curd. <b>Example Paneer:</b> Detailed standard operating procedure for paneer: receiving milk – chilling – standardization - boiling – addition of additive- curdling - filtering – pressing- cold immersion – cutting – packing. Quality parameters of raw material and finished product as per the FSSAI guidelines. <b>Training material to be translated as per the local language of the beneficiaries</b>	4	8
<b>Packaging of Milk and Milk Products</b> Advances in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of milk and milk products. Selection of packaging materials, standards for milk and milk products with respect to specific ODOP. Recent packaging techniques to extend the shelf life of the product-aseptic packaging, convenient and smart packaging. Advances in storage of milk and milk products with specific ODOP.	3	1
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to dairy processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure – instant adulteration test procedures and safe microbial load of unprocessed milk.	3	1
<b>Entrepreneurship Development Program – 21 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
*Assessment by FICSI	4	-
Sub total	32	18
*if required		<b>Total: 50 hr</b>



## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (Existing Entrepreneurs)

### 7.3 Grain processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 50 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 25 hr</b>		
<b>Introduction:</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status and scope of grain processing; preprocessing of cereals and pulses with respective ODOP- drying, cleaning, grading and detection of extraneous matter. Effect of different factors on various properties	2	0
<b>Plant layout and maintenance for grain processing</b> Introduction to food plant design - plant location - location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Equipments and specifications of machineries in grain processing (specific to ODOP)</b> Equipment and specification involved in unit operations & specifications of machineries involved in grain processing industry with respect of ODOP.	2	1
<b>Value addition (It can be modified to specific ODOP by the DLT'S)</b> <b>Value added product from rice:</b> <ul style="list-style-type: none"> <li>• Puffed rice</li> <li>• Flaked rice</li> </ul> <b>Example: Puffed Rice:</b> Processing equipment used in grain processing with respect to ODOP- unit operations – paddy cleaning – soaking – parboiled rice – milling – dry heat parboiled rice in pan- salting – roasting in hot sand – expanded rice- cooling – packing. <b>Example: Rice Flakes:</b> Processing equipment used in grain processing with respect to ODOP- unit operations – paddy cleaning – soaking –roasting – tempering – flaking – cooling – packing. <b>Training material to be translated as per the local language of the beneficiaries</b>	4	8
<b>Packaging of grains</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of grains with respect to ODOP. Selection of packaging materials and standards grains. Recent packaging techniques to extend the shelf life of the value added products- flexible packing, MAP.	3	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices, Quality of processed grains as per the standards given in food safety regulation on standards in Section 2.4 (Cereal Products) and 2.4.6 (Food Grains), Safe storage temperature and moisture content of food grains. HACCP implementation program. Regulations and standards for maintaining food safety and quality –BIS, FSSAI and International standards – FSSAI packaging and labeling requirements. FSSAI registration and licensing procedure.	3	1
<b>Entrepreneurship Development Program – 21 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
*Assessment by FICSI	4	-
Sub total	32	18
*if required	<b>Total: 50 hr</b>	

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (Existing Entrepreneurs)

### 7.4 Fish and Marine Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 50 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 25 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of fish and marine food processing industry in India; Selection, procurement and supply chain management of fish and marine food for processing industry.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Equipments and specifications of machineries in F&amp;M processing</b> Equipment and specification involved in unit operations of fish and marine food processing specific to ODOP. CIP system & program. Equipments used in fish processing units- cold storage for processing and preservation, fish cutting machine -fish-de -scaling machine, solar drying unit.	2	1
<b>Value addition of Fish and Marine (It can be modified to specific ODOP by the DLTs)</b> <b>Value added products from fish:</b> Salt curing and smoking – drying of fish - freezing preservation - freezing methods– Block Frozen, IQF and cooked forms. Minced products - surimi process – fish meal- fish oil. Ready to cook frozen products, fish protein isolate- fermented fish sauce- waste and by-products utilization. <b>Handling and preservation of fish and marine products specific to ODOP:</b> <b>Example: Fish surimi:</b> Receiving fish- heading and gutting – meat separation – washing – dewatering – mixing with cryoprotectants – forming – packaging- cold storage. <b>Training material to be translated as per the local language of the beneficiaries</b>	4	8
<b>Packaging of Fish and Marine Products</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of fish and marine products respective to ODOP. Selection of packaging materials standards for fish and marine products. Recent packaging techniques to extend the shelf life of the product-aseptic packaging, convenient and smart packaging. Advances in storage of fish and marine products.	3	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to fish and marine food processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality –FSSAI regulation – 2.6.1 and International standards – FSSAI packaging and labeling requirements. FSSAI registration and licensing procedure.	3	1
<b>Entrepreneurship Development Program – 21 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
*Assessment by FICSI	4	-
Sub total	32	18
*if required	<b>Total: 50 hr</b>	

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (Existing Entrepreneurs)

### 7.5 Meat and Poultry Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 50 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 25 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. status, market size and Scope of meat and poultry processing industry in India; Selection, procurement and supply chain management of meat and poultry for processing industry.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location – location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Equipment’s and specifications of machineries in M&amp;P processing</b> Equipment and specification involved in unit operations of meat and poultry processing. CIP: Cleaning & sanitization of processing equipment’s: CIP system & program. Processing line for poultry industry – shackling – stunning – beeding – scalding – picking – evisceration – washing – chilling- cut bone deboning – stoning.	2	1
<b>Value addition of meat and poultry (It can be modified to specific ODOP by the DLT’S)</b> <b>Value added product from poultry:</b> Egg powder, chicken sausages, chicken nuggets, patties. <b>Egg powder production:</b> Receiving - quality analysis of egg – breaking shell removing- separation of components- filtration – pasteurization – spray drying – packing. uses of egg powder in bakery and confectionary, noodles and pasta, mayonnaise and salad dressings. Waste and byproducts utilization. <b>Chicken nugget:</b> raw material inspection- storage- chopping / mincing– mixing with additives – mixing- forming- frying. <b>Value added product from meat:</b> Dried and smoked meat products, sausages, semi dry sausages, dry sausages. Cured meat products. Restructured meat. Fried, broiled, roasted meat products. Braising and stewing of meat products. Curries, bacon, ham, cutlet-mix, chicken-n-ham and salami. <b>Example: Sausages production:</b> Raw material receiving – quality check- chopping – grinding – mixing of additives – emulsification – stuffing – linking and tying – cooking / smoking – chilling – packing- storing. <b>Training material to be translated as per the local language of the beneficiaries</b>	4	8
<b>Packaging of meat and poultry products</b> Advances in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of meat and poultry products with respect to ODOP. Selection of packaging materials standards for meat and poultry products. Recent packaging techniques to extend the shelf life of the product-aseptic packaging, convenient and smart packaging. Advances in storage of meat and poultry products.	3	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to meat and poultry processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality –FSSAI (Regulation – 2.5.1 – 2.5.3) and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	3	1
<b>Entrepreneurship Development Program – 21 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
*Assessment by FICSI	4	-
Sub total	32	18
*if required		<b>Total: 50 hr</b>

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (Existing Entrepreneurs)

### 7.6 Bakery and Confectionery Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 50 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 25 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and scope of bakery and confectionery industries in India- Raw materials for bakery and confectionery products specifications, compositions, role of raw materials - flour, types of flour, quality assessment of flour, sugar, shortenings, leavening agents, egg, salt, water, moistening agent, cocoa products, fruits, nuts, improvers, flavoring and coloring agents.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Bakery machinery and equipment:</b> Identification and selection of bakery and confectionary equipment’s-weighing equipment- manual scale, Mixing- blenders, Make up equipment, divider, rounder, proofer, molders. Baking equipment – different oven, slicer. Confectionary products machines. Importance of metal detector used in bakery industry.	2	1
<b>Value addition of Bakery and Confectionery products (It can be modified to specific ODOP by the DLT’S)</b> Bread making- methods- Manufacturing process of breads, biscuit, cookies- crackers- buns- preservation of bakery products. Frozen bakery products. Production of chocolate, fondant, caramels, fudge and toffee and cakes and pastries. <b>Example bread making:</b> Raw material receiving – quality check- batch making (addition of ingredients with respective proposition) – kneading – molding – panning - Proofing – baking – cooling – slicing – packing. <b>Training material to be translated as per the local language of the beneficiaries</b>	4	8
<b>Packaging of Bakery Products:</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of bakery products with respect to ODOP. Selection of packaging materials (flexible and rigid packing). Recent packaging techniques to extend the shelf life of the product such (MAP).	3	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices, HACCP implementation program – importance of PRP and OPRP requirement in baking industry. Regulations and standards for maintaining food safety and quality, Standards Fssai for bakery products 2.4.15 –BIS, FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	3	1
<b>Entrepreneurship Development Program – 21 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
*Assessment by FICSI	4	-
Sub total	32	18
*if required	<b>Total: 50 hr</b>	

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (Existing Entrepreneurs)

### 7.7 Fat and oil seed processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 50 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 25 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of fats and oil seed processing industry in India; Selection, Procurement and supply chain management of fats and oil seed for processing industry.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. waste treatment plant operation management, safe disposal of plant waste. <b>Equipment and specifications of machineries in fats and oil seed processing</b> Equipment and specification involved in unit operations of fats and oil seed processing with respect to specific ODOP. Traditional cold press and virgin oil processing CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	2	1
<b>Processing of fats and oil seeds - (It can be modified to specific ODOP by the DLT'S)</b> <b>Value added product from Milk and animal fats:</b> Production, characteristics, composition, processing and utilization of milk fats and butter, animal fats such as lard and tallow, fish and marine oils. <b>Value added products from Edible oil sources:</b> Coconut, palm, palm kernel, olive, cocoa butter, sunflower, safflower, sesame, groundnut, mustard, rapeseed, canola, soybean, linseed, castor, rice-bran, cottonseed. Processing of oils seeds and Refining of oil. By product utilization of oil milling industries. Example vegetable oil: Detailed unit operation - selection of quality oil seeds- crushing – crude oil extraction – degumming – de-acidification – de-colorization – de-Odorizing – refined Edible oil. <b>Example processing of butter:</b> Detailed unit operation of butter making process- receiving milk- sampling – quality checks – heating – separation of cream – standardization of fat – pasteurization – ripening – cooling and aging – churning – salting – testing of finished product- packing – storage. <b>Training material to be translated as per the local language of the beneficiaries</b>	4	8
<b>Packaging of fats and oils</b> Advance in packaging, requirements, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of fats and edible oils. Selection of packaging materials standards for fats and oils. Advances in storage of fats and oils. - changes during storage – rancidity – causes – atmospheric oxidation and enzyme action – free fatty acid – color.	3	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. Concept of quality assurance and quality control in relation to fat and oil industry; quality management systems - ISO 9000; TQM, HACCP, GMP, GHP, GLP relevant to fat and oilseed processing; role of International organizations- ISO, IDF, CAC, AOAC and WTO, National organizations - BIS, Agmark; significance of oil and allied products order, FSSAI Standards (2.2.1 to 2.2.24) and APEDA in oil industry; guidelines for setting up quality control laboratory. Legislation on fats and oils, packaging laws and testing of packaged materials.	3	1
<b>Entrepreneurship Development Program – 21 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
*Assessment by FICSI	4	-
Sub total	32	18
*if required	<b>Total: 50 hr</b>	

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (Existing Entrepreneurs)

### 7.8 Spices and Plantation Crops Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 50 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 25 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and scope of spices and plantation crop processing industry in India; Selection, procurement and supply chain management of spices and plantation crop for processing industry.	2	0
<b>Plant layout and maintenance for spices and plantation crops processing</b> Introduction to food plant design - plant location - location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Equipment and specifications of machineries in spices and plantation crop processing</b> Different unit operations pertaining to spices and plantation crops processing with respect to specific ODOP. Equipment and specification involved in unit operations of different spices and plantation crop processing. CIP: Cleaning & sanitization of processing equipment.	2	1
<b>Value addition of spices and plantation crops (It can be modified to specific ODOP by the DLTs)</b> Spices: Extracts-Essential oils, oleoresin, flavor and natural color and pigments. Preparation of powders, dried spices and condiments, Curry mixes, Curry Paste, dehydrated products. Pepper-dehydrated green pepper, white pepper and canned pepper. <b>Example:</b> Sambar powder making: Recipe formula / standardization – selection of ingredients-quality checks – washing – drying - weighting of ingredients – roasting – pulverizing – packing – storage. <b>Training material to be translated as per the local language of the beneficiaries</b>	4	8
<b>Packaging of spices and plantation crop Products</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of spices and plantation crop and their value-added products. Selection of packaging materials and standards for spices and plantation crop products. Recent packaging techniques to extend the shelf life of the product such as oil, oleoresin, coconut milk, preserve and juices. Technologies - Aseptic packaging, tetra pack, MAP, hermetic packaging, convenient intelligent and smart packaging. Advances in storage of spices and plantation crops.	3	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices, ASTA standards for clean spices and CODEX national and international standards relevant to Black pepper, cardamom, turmeric, ginger, tamarind, curry leaf and coriander in spices and tea, coffee, cocoa, cashew, rubber in plantation crops. HACCP implementation program. Regulations and standards for maintaining food safety and quality – BIS, FSSAI standards (Spices 2.9 – Tea and Coffee- 2.10) and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	3	1
<b>Entrepreneurship Development Program – 21 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
*Assessment by FICSI	4	-
Sub total	32	18
*if required		<b>Total: 50 hr</b>

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (Existing Entrepreneurs)

### 7.9 Minor Forest Produce Processing

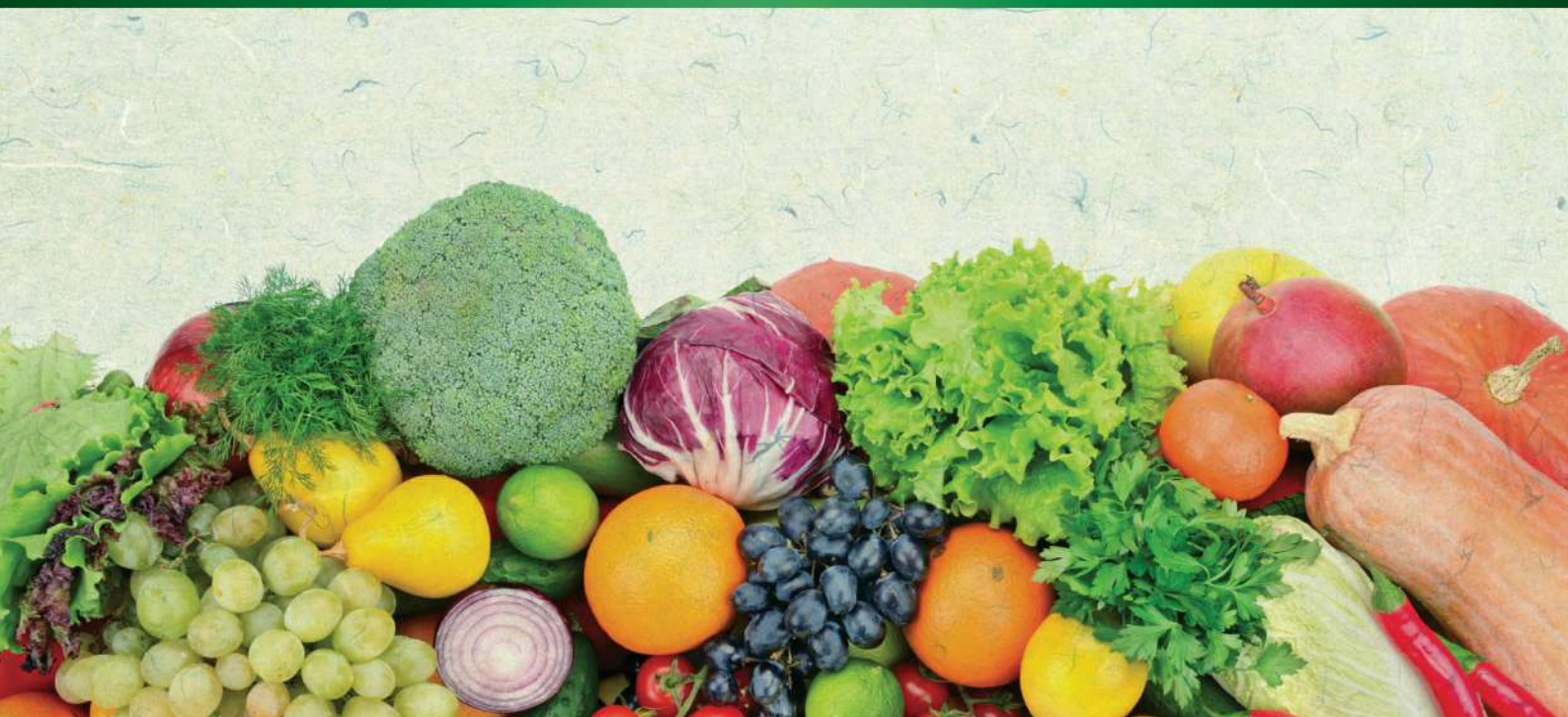
Technical Aspects: Processing, Value addition, Trading, Machinery, Packaging and Storage, Procurement, Food safety regulations & certification.

**Training Time: 50 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 25 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status and scope of minor forest produce (MFP); Types of minor forest produce under different categories – medicinal, essential oils. edible wild plants, gums, resins, natural coloring materials, exotic Spices (king chili) etc.	2	0
<b>Collection&amp; trading of minor forest produce</b> Significance in tribal economy–Sustainable cultivation &collection methods, mechanism of marketing of minor forest produce – minimum support price- promotion <b>Equipment and specifications of machineries in minor forest produce</b> Equipment involved in collection of minor forest produce. Specifications of machineries involved in processing of different minor forest produce with respect to specific ODOP. CIP: cleaning & sanitization of processing equipment.	2	1
<b>Value addition (It can be modified to specific ODOP by the DLTs)</b> Sugar conserves: Jams, jellies, toffee. Beverages: Juices, squashes, syrups, nectars, RTS. Preparation of concentrates-puree, soup, and paste. Preparation of pickles, and chutneys. Medicinal & aromatic products. Traditional herbals –Preparation of herbal tea, Wild honey – preparation of herbal infused honey- garlic honey, cinnamon honey. <b>Example Flavored Honey Processing:</b> Raw honey – screening – filtering – addition of herbs/ spices - pasteurization – cooling – filling – packing – storing – labeling – branding. <b>Training material to be translated as per the local language of the beneficiaries</b>	4	8
<b>Packaging of minor forest products</b> Different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of MFP & their value added products with respective ODOP. Selection of packaging materials standards for minor forest produce. Recent packaging techniques to extend the shelf life of the product. Storage of value added products from minor forest produce.	3	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP guidelines of basic sanitary practice to be followed by food handlers given by FSSAI., GHP, GLP practices relevant to minor forest produce. Indian forest act, status of certification of non-timber forest products (NFTP). FSSAI registration and licensing procedure.	3	1
<b>Entrepreneurship Development Program – 21 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
*Assessment by FICSI	4	
Sub total	32	18
*if required	<b>Total: 50 hr</b>	



**Syllabus for Training of  
New Beneficiaries under PMFME Scheme**





## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (New Entrepreneurs)

### 8.1 Fruits and Vegetable Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 60 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online/ Offline	Demo/ Self- learning
<b>Domain Skills – 30 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and scope of fruit and vegetable processing industry in India; Selection, procurement and supply chain management of fruits and vegetables specific to ODOP for processing industry; Imparting skills on various equipment's used for primary processing, cleaning, washing, sorting and handling, and its maintenance and precautions.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection- layout -repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Equipment and specifications of machineries in F&amp;V processing</b> Various methods of fruit and vegetable preservation Specific to ODOP: Minimal processing, Equipment and specification involved in unit operations of fruits and vegetables. Cleaning & sanitization of processing equipment.	3	1
<b>Value addition (It can be modified to specific ODOP by the DLT'S)</b> <b>Tomato as example is given below:</b> <b>List of value-added products can be made out of tomato:</b> 1. Preparation and processing of concentrates-puree, sauces, ketchups, soup, and paste. 2. Preparation and processing of pickles, and chutneys. 3. Preparation and processing of dehydrated tomato, tomato powder. <b>Example: Processing of tomato sauce:</b> Suitable variety for various processing methods - Detailed standard operating procedure and processing steps – grading – washing – pulping- filtering – mixing of additives – concentrate- bottling- pasteurization- cooling – storage. Product formula, processing steps, additives, preservatives used in tomato processing. Critical factors during processing (eg. Temperature, acidity) Quality parameters for raw material, semi-finished, and finished products. Tomato waste and byproducts utilization <b>Training material to be translated as per the local language of the beneficiaries</b>	7	7
<b>Packaging of fruits and vegetable products</b> Advances in packaging, different packaging materials, methods and machineries involved (Primary, Secondary and tertiary) in packaging of fruits and vegetables products with respect to ODOP. Brief of food grade packing material and regulations. Selection of packaging materials standards for fruits and vegetable products specific to ODOP. Nutritional label requirements for specific ODOP as per FSSAI standards. Recent packaging techniques to extend the shelf life of the Product-Aseptic packaging, tetra pack, convenient and smart packaging. Advances in storage of fruits and vegetables including low temperature, CA and MA storage.	4	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to fruits and vegetable processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	4	1
<b>Entrepreneurship Development Program – 26 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
The Basic characteristic of Entrepreneur and Entrepreneurial Mind, Steps for Idea Validation, Intellectual Property Rights (IPR), Legal Issues for Entrepreneur, GST Basic Concepts, Marketing Plan, Product Planning and Development, Digital Marketing Platforms, Costing, Pricing & Profit Assessment, Bankable Project Report.	5	0
*Assessment by FICSI	4	-
Sub total	50	10
*if required <span style="float: right;">Total: 60 hr</span>		

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (New Entrepreneurs)

### 8.2 Dairy Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 60 hr (Online + Offline)**

Technical aspects	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Training Syllabus</b>		
<b>Domain Skills – 30 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of dairy processing industry in India; Selection, Procurement and supply chain management of milk for dairy processing industry.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location – location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. PRP and OPRP guidelines- Waste disposal – sewage treatment. <b>Equipment’s and specifications of machineries in processing</b> Equipment and specification involved in unit operations of milk processing. Process control equipment and accessories for a complete milk processing plant.CIP: Cleaning & sanitization of processing equipment’s	3	1
<b>Processing and value addition of Milk</b> Processing of fluid milk- chilling, standardization, homogenization, pasteurization, cream separation, and packing. Sensitization about types of processed fluid milk- standardized milk, toned, double toned and skimmed milk. Aseptic processing of milk. <b>Value addition (It can be modified to specific ODOP by the DLT’S)</b> <b>Milk</b> – as an example: Standardized milk, flavored milk, paneer, curd. <b>Example Paneer:</b> Detailed standard operating procedure for paneer: receiving milk – chilling – standardization - boiling – addition of additive- curdling - filtering – pressing- cold immersion – cutting – packing.Critical factors during processing (eg. Temperature, pH) Quality parameters of raw material and finished product as per the FSSAI guidelines. <b>Training material to be translated as per the local language of the beneficiaries</b>	7	7
<b>Packaging of Milk and Milk Products</b> Advances in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of milk and milk products. Selection of packaging materials, standards for milk and milk products with respect to specific ODOP. Recent packaging techniques to extend the shelf life of the product-aseptic packaging, convenient and smart packaging. Advances in storage of milk and milk products with specific ODOP.	4	1
<b>Food safety regulations &amp; certification</b> Need for testing of Food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to dairy processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality - FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure – instant adulteration test procedures and safe microbial load of unprocessed milk.Guidelines of Food and Drug Administration for dairy processing.	4	1
<b>Entrepreneurship Development Program – 26 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
The Basic characteristic of Entrepreneur and Entrepreneurial Mind, Steps for Idea Validation, Intellectual Property Rights (IPR), Legal Issues for Entrepreneur, GST Basic Concepts, Marketing Plan, Product Planning and Development, Digital Marketing Platforms, Costing, Pricing & Profit Assessment, Bankable Project Report.	5	0
*Assessment by FICSI	4	
Sub total	50	10
*if required		<b>Total: 60 hr</b>

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (New Entrepreneurs)

### 8.3 Grain processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 60 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 30 hr</b>		
<b>Introduction:</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status and scope of grain processing; preprocessing of cereals and pulses with respective ODOP- drying, cleaning, grading and detection of extraneous matter. Effect of different factors on various properties	2	0
<b>Plant layout and maintenance for grain processing</b> Introduction to food plant design - plant location - location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Equipments and specifications of machineries in grain processing (specific to ODOP)</b> Equipment and specification involved in unit operations & specifications of machineries involved in grain processing industry with respect of ODOP.	3	1
<b>Value addition (It can be modified to specific ODOP by the DLT'S)</b> <b>Value added product from rice:</b> <ul style="list-style-type: none"> <li>• Puffed rice</li> <li>• Flaked rice</li> </ul> <b>Example: Puffed Rice:</b> Processing equipment used in grain processing with respect to ODOP- unit operations – paddy cleaning – soaking – parboiled rice – milling – dry heat parboiled rice in pan- salting – roasting in hot sand – expanded rice- cooling – packing. <b>Example: Rice Flakes:</b> Processing equipment used in grain processing with respect to ODOP- unit operations – paddy cleaning – soaking –roasting – tempering – flaking – cooling – packing. <b>Training material to be translated as per the local language of the beneficiaries</b>	7	7
<b>Packaging of grains</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of grains with respect to ODOP. Selection of packaging materials and standards grains. Recent packaging techniques to extend the shelf life of the value added products- flexible packing, MAP.	4	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices, Quality of processed grains as per the standards given in food safety regulation on standards in Section 2.4 (Cereal Products) and 2.4.6 (Food Grains), Safe storage temperature and moisture content of food grains. HACCP implementation program. Regulations and standards for maintaining food safety and quality –BIS, FAO, ISO,FSSAIand International standards – FSSAI packaging and labeling requirements. FSSAI registration and licensing procedure. Guidelines of Food and Drug Administration for dairy processing.	4	1
<b>Entrepreneurship Development Program – 26 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
The Basic characteristic of Entrepreneur and Entrepreneurial Mind, Steps for Idea Validation, Intellectual Property Rights (IPR), Legal Issues for Entrepreneur, GST Basic Concepts, Marketing Plan, Product Planning and Development, Digital Marketing Platforms, Costing, Pricing & Profit Assessment, Bankable Project Report.	5	0
*Assessment by FICSI	4	
Sub total	50	10
*if required	<b>Total: 60 hr</b>	

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (New Entrepreneurs)

### 8.4 Fish and Marine Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 60 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 30 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of fish and marine food processing industry in India; Selection, procurement and supply chain management of fish and marine food for processing industry.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Equipments and specifications of machineries in F&amp;M processing</b> Equipment and specification involved in unit operations of fish and marine food processing specific to ODOP. CIP system & program. Equipments used in fish processing units- cold storage for processing and preservation, fish cutting machine -fish-de-scaling machine, solar drying unit.	3	1
<b>Value addition of Fish and Marine (It can be modified to specific ODOP by the DLTs)</b> <b>Value added products from fish:</b> Salt curing and smoking – drying of fish - freezing preservation - freezing methods– Block Frozen, IQF and cooked forms. Minced products – canned fish-sundried fish-boil dried – roast dried fish – fermented and unfermented fish products- fermented fish sauce -surimi process – fish cutlet – fish sev – fish vada-fish kheema-fish meal- fish oil. Ready to cook frozen products, fish protein isolate- waste and by-products utilization. <b>Handling and preservation of fish and marine products specific to ODOP:</b> <b>Example: Fish surimi:</b> Receiving fish- heading and gutting – meat separation – washing – dewatering – mixing with cryoprotectants – forming – packaging- cold storage. <b>Training material to be translated as per the local language of the beneficiaries</b>	7	7
<b>Packaging of Fish and Marine Products</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of fish and marine products respective to ODOP. Selection of packaging materials standards for fish and marine products. Recent packaging techniques to extend the shelf life of the product-aseptic packaging, convenient and smart packaging. Advances in storage of fish and marine products.	4	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to fish and marine food processing. Guideline of Codex and FAO.HACCP implementation program. Regulations and standards for maintaining food safety and quality –FSSAI regulation – 2.6.1 and International standards – FSSAI packaging and labeling requirements. FSSAI registration and licensing procedure.	4	1
<b>Entrepreneurship Development Program – 26 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
The Basic characteristic of Entrepreneur and Entrepreneurial Mind, Steps for Idea Validation, Intellectual Property Rights (IPR), Legal Issues for Entrepreneur, GST Basic Concepts, Marketing Plan, Product Planning and Development, Digital Marketing Platforms, Costing, Pricing & Profit Assessment, Bankable Project Report.	5	0
*Assessment by FICSI	4	-
Sub total	50	10
*if required		<b>Total: 60 hr</b>

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (New Entrepreneurs)

### 8.5 Meat and Poultry Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 60 hr (Online + Offline)**

Technical aspects	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Training Syllabus</b>		
<b>Domain Skills – 30 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. status, market size and Scope of meat and poultry processing industry in India; Selection, procurement and supply chain management of meat and poultry for processing industry.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location – location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Equipment’s and specifications of machineries in M&amp;P processing</b> Equipment and specification involved in unit operations of meat and poultry processing. CIP: Cleaning & sanitization of processing equipment’s: CIP system & program. Processing line for poultry industry – shackling – stunning – beeding – scalding – picking – evisceration – washing – chilling- cut bone deboning – stoning.	3	1
<b>Value addition of meat and poultry (It can be modified to specific ODOP by the DLT’S)</b> <b>Value added product from poultry:</b> Egg powder, chicken sausages, chicken nuggets, patties. <b>Egg powder production:</b> Receiving - quality analysis of egg – breaking shell removing- separation of components- filtration – pasteurization – spray drying – packing. uses of egg powder in bakery and confectionary, noodles and pasta, mayonnaise and salad dressings. Waste and byproducts utilization. <b>Chicken nugget:</b> raw material inspection- storage- chopping / mincing– mixing with additives – mixing- forming- frying. <b>Value added product from meat:</b> Dried and smoked meat products, sausages, semi dry sausages, dry sausages. Cured meat products. Restructured meat. Fried, broiled, roasted meat products. Braising and stewing of meat products. Curries, bacon, ham, outlet-mix, chicken-n-ham and salami. <b>Example: Sausages production:</b> Raw material receiving – quality check- chopping – grinding – mixing of additives – emulsification – stuffing – linking and tying – cooking / smoking – chilling – packing- storing. <b>Training material to be translated as per the local language of the beneficiaries</b>	7	7
<b>Packaging of meat and poultry products</b> Advances in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of meat and poultry products with respect to ODOP. Selection of packaging materials standards for meat and poultry products. Recent packaging techniques to extend the shelf life of the product-aseptic packaging, convenient and smart packaging. Advances in storage of meat and poultry products.	4	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices relevant to meat and poultry processing. HACCP implementation program. Regulations and standards for maintaining food safety and quality –FSSAI (Regulation – 2.5.1 – 2.5.3) and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.FAO and Codex regulations for meat and poultry products.	4	1
<b>Entrepreneurship Development Program – 26 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
The Basic characteristic of Entrepreneur and Entrepreneurial Mind, Steps for Idea Validation, Intellectual Property Rights (IPR), Legal Issues for Entrepreneur, GST Basic Concepts, Marketing Plan, Product Planning and Development, Digital Marketing Platforms, Costing, Pricing & Profit Assessment, Bankable Project Report.	5	0
*Assessment by FICSI	4	-
Sub total	50	10
*if required		<b>Total: 60 hr</b>

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (New Entrepreneurs)

### 8.6 Bakery and Confectionery Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 60 hr (Online + Offline)**

Technical aspects	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Training Syllabus</b>		
<b>Domain Skills – 30 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and scope of bakery and confectionery industries in India- Raw materials for bakery and confectionery products specifications, compositions, role of raw materials - flour, types of flour, quality assessment of flour, sugar, shortenings, leavening agents, egg, salt, water, moistening agent, cocoa products, fruits, nuts, improvers, flavoring and coloring agents.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Bakery machinery and equipment:</b> Identification and selection of bakery and confectionery equipment’s-weighing equipment- manual scale, Mixing- blenders, Make up equipment, divider, rounder, proofer, molders. Baking equipment – different oven, slicer. Confectionery products machines. Importance of metal detector used in bakery industry.	3	1
<b>Value addition of Bakery and Confectionery products (It can be modified to specific ODOP by the DLT’S)</b> Bread making- methods- Manufacturing process of breads, biscuit, cookies- crackers- buns- preservation of bakery products. - Frozen bakery products. Production of chocolate, fondant, caramels, fudge and toffee and cakes and pastries. <b>Example bread making:</b> Mixing techniques of bread – faults and remedies. Role of ingredients – quality requirement of ingredients. Product formula.Raw material receiving – quality check- batch making (addition of ingredients with respective proposition) – kneading – molding – panning - Proofing – baking – cooling – slicing – packing. <b>Training material to be translated as per the local language of the beneficiaries</b>	7	7
<b>Packaging of Bakery Products:</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of bakery products with respect to ODOP. Selection of packaging materials (flexible and rigid packing). Recent packaging techniques to extend the shelf life of the product such (MAP).	4	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices, HACCP implementation program – importance of PRP and OPRP requirement in baking industry. Regulations and standards for maintaining food safety and quality, Standards Fssai for bakery products 2.4.15 –BIS, FSSAI and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	4	1
<b>Entrepreneurship Development Program – 26 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
The Basic characteristic of Entrepreneur and Entrepreneurial Mind, Steps for Idea Validation, Intellectual Property Rights (IPR), Legal Issues for Entrepreneur, GST Basic Concepts, Marketing Plan, Product Planning and Development, Digital Marketing Platforms, Costing, Pricing & Profit Assessment, Bankable Project Report.	5	0
*Assessment by FICSI	4	-
Sub total	50	10
*if required		<b>Total: 60 hr</b>

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (New Entrepreneurs)

### 8.7 Fat and oil seed processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 60 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online/ Offline	Demo/ Self- learning
<b>Domain Skills – 30 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and Scope of fats and oil seed processing industry in India; Selection, Procurement and supply chain management of fats and oil seed for processing industry.	2	0
<b>Plant layout and maintenance</b> Introduction to food plant design - plant location - location factors, site- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. waste treatment plant operation management, safe disposal of plant waste. <b>Equipment and specifications of machineries in fats and oil seed processing</b> Equipment and specification involved in unit operations of fats and oil seed processing with respect to specific ODOP. Traditional cold press and virgin oil processing CIP: Cleaning & sanitization of processing equipment's: objectives, frequency, procedures, mechanical cleaning aspects, CIP system & program.	3	1
<b>Processing of fats and oil seeds - (It can be modified to specific ODOP by the DLT'S)</b> <b>Value added product from Milk and animal fats:</b> Production, characteristics, composition, processing and utilization of milk fats and butter, animal fats such as lard and tallow, fish and marine oils. <b>Value added products from Edible oil sources:</b> Coconut, palm, palm kernel, olive, cocoa butter, sunflower, safflower, sesame, groundnut, mustard, rapeseed, canola, soybean, linseed, castor, rice-bran, cottonseed. Suitable variety for oil processing-Processing of oils seeds and refining of oil. By product utilization of oil milling industries. Example vegetable oil: Detailed unit operation - selection of quality oil seeds- crushing – crude oil extraction – degumming – de-acidification – de-colorization – de-Odorizing – refined Edible oil. <b>Example processing of butter:</b> Detailed unit operation of butter making process- receiving milk- sampling – quality checks – heating – separation of cream – standardization of fat – pasteurization – ripening – cooling and aging – churning – salting – testing of finished product- packing – storage. <b>Training material to be translated as per the local language of the beneficiaries</b>	7	7
<b>Packaging of fats and oils</b> Advance in packaging, requirements, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of fats and edible oils. Selection of packaging materials standards for fats and oils. Advances in storage of fats and oils. - changes during storage –rancidity – causes – atmospheric oxidation and enzyme action – free fatty acid – color.	4	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. Concept of quality assurance and quality control in relation to fat and oil industry; quality management systems - ISO 9000; TQM, HACCP, GMP, GHP, GLP relevant to fat and oilseed processing; role of International organizations- ISO, IDF, CAC, AOAC and WTO, National organizations - BIS, Agmark; significance of oil and allied products order, FSSAI Standards (2.2.1 to 2.2.24) and APEDA in oil industry; guidelines for setting up quality control laboratory. Legislation on fats and oils, packaging laws and testing of packaged materials.	4	1
<b>Entrepreneurship Development Program – 26 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
The Basic characteristic of Entrepreneur and Entrepreneurial Mind, Steps for Idea Validation, Intellectual Property Rights (IPR), Legal Issues for Entrepreneur, GST Basic Concepts, Marketing Plan, Product Planning and Development, Digital Marketing Platforms, Costing, Pricing & Profit Assessment, Bankable Project Report.	5	0
*Assessment by FICSI	4	-
Sub total	50	10
*if required	<b>Total: 60 hr</b>	

## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (New Entrepreneurs)

### 8.8 Spices and Plantation Crops Processing

Technical Aspects: Processing, Value addition, Supply Chain, Machinery, Packaging and Storage, Procurement, Product Development, Food safety regulations & certification.

**Training Time: 60 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 30 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status, market size and scope of spices and plantation crop processing industry in India; Selection, procurement and supply chain management of spices and plantation crop for processing industry.	2	0
<b>Plant layout and maintenance for spices and plantation crops processing</b> Introduction to food plant design - plant location - location factors, site selection- layout. Repair and maintenance of equipment – preventive and breakdown maintenance – replacement of equipment. <b>Equipment and specifications of machineries in spices and plantation crop processing</b> Different unit operations pertaining to spices and plantation crops processing with respect to specific ODOP. Equipment and specification involved in unit operations of different spices and plantation crop processing. CIP: Cleaning & sanitization of processing equipment.	3	1
<b>Value addition of spices and plantation crops (It can be modified to specific ODOP by the DLTs)</b> Spices: Extracts-Essential oils, oleoresin, flavor and natural color and pigments. Preparation of powders, dried spices and condiments, Curry mixes, Curry Paste, dehydrated products. Pepper-dehydrated green pepper, white pepper and canned pepper. <b>Example:</b> Sambar powder making: Recipe formula / standardization – selection of ingredients- quality checks – washing – drying - weighting of ingredients – roasting – pulverizing – packing – storage. <b>Training material to be translated as per the local language of the beneficiaries</b>	7	7
<b>Packaging of spices and plantation crop Products</b> Advance in packaging, different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of spices and plantation crop and their value-added products. Selection of packaging materials and standards for spices and plantation crop products. Recent packaging techniques to extend the shelf life of the product such as oil, oleoresin, coconut milk, preserve and juices. Technologies - Aseptic packaging, tetra pack, MAP, hermetic packaging, convenient intelligent and smart packaging. Advances in storage of spices and plantation crops.	4	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP, GHP, GLP practices, ASTA standards for clean spices and CODEX national and international standards relevant to Black pepper, cardamom, turmeric, ginger, tamarind, curry leaf and coriander in spices and tea, coffee, cocoa, cashew, rubber in plantation crops. HACCP implementation program. Regulations and standards for maintaining food safety and quality –BIS, FSSAI standards (Spices 2.9 – Tea and Coffee- 2.10) and International standards – FSSAI packaging and labelling requirements. FSSAI registration and licensing procedure.	4	1
<b>Entrepreneurship Development Program – 26 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
The Basic characteristic of Entrepreneur and Entrepreneurial Mind, Steps for Idea Validation, Intellectual Property Rights (IPR), Legal Issues for Entrepreneur, GST Basic Concepts, Marketing Plan, Product Planning and Development, Digital Marketing Platforms, Costing, Pricing & Profit Assessment, Bankable Project Report.	5	0
*Assessment by FICSI	4	-
Sub total	50	10
*if required	<b>Total: 60 hr</b>	



## Training of Beneficiary (ToBs) Syllabus - Food Domain and EDP for (New Entrepreneurs)

### 8.9 Minor Forest Produce Processing

Technical Aspects: Processing, Value addition, Trading, Machinery, Packaging and Storage, Procurement, Food safety regulations & certification.

**Training Time: 60 hr (Online + Offline)**

Technical aspects		
Training Syllabus	Time duration (hr)	
	Online / Offline	Demo/ Self-learning
<b>Domain Skills – 30 hr</b>		
<b>Introduction</b> Overview of PMFME scheme, guidelines, objectives, capacity building framework and its implementation. Status and scope of minor forest produce (MFP); Types of minor forest produce under different categories – medicinal, essential oils, edible wild plants, gums, resins, natural coloring materials, exotic Spices (king chili) etc.	2	0
<b>Collection&amp; trading of minor forest produce</b> Significance in tribal economy–Sustainable cultivation &collection methods, mechanism of marketing of minor forest produce – minimum support price- promotion <b>Equipment and specifications of machineries in minor forest produce</b> Equipment involved in collection of minor forest produce. Specifications of machineries involved in processing of different minor forest produce with respect to specific ODOP. CIP: cleaning & sanitization of processing equipment.	3	1
<b>Value addition (It can be modified to specific ODOP by the DLTs)</b> Sugar conserves: Jams, jellies, toffee. Beverages: Juices, squashes, syrups, nectars, RTS. Preparation of concentrates-puree, soup, and paste. Preparation of pickles, and chutneys. Medicinal & aromatic products. Traditional herbals –Preparation of herbal tea, Wild honey – preparation of herbal infused honey- garlic honey, cinnamon honey. <b>Example Flavoured Honey Processing:</b> Raw honey – screening – filtering – addition of herbs/ spices - pasteurization – cooling – filling – packing – storing – labelling – branding. <b>Training material to be translated as per the local language of the beneficiaries</b>	7	7
<b>Packaging of minor forest products</b> Different packaging materials, methods and machineries involved (primary, secondary and tertiary) in packaging of MFP & their value added products with respective ODOP. Selection of packaging materials standards for minor forest produce. Recent packaging techniques to extend the shelf life of the product. Storage of value added products from minor forest produce.	4	1
<b>Food safety regulations &amp; certification</b> Need for testing of food, notified NABL labs, referral labs and reference labs in India. GMP guidelines of basic sanitary practice to be followed by food handlers given by FSSAI., GHP, GLP practices relevant to minor forest produce. Indian forest act, status of certification of non-timber forest products (NFTP). FSSAI registration and licensing procedure.	4	1
<b>Entrepreneurship Development Program – 26 hr</b>		
Entrepreneurship & its features - Business Opportunity Identification - Conducting market survey & preparing a feasibility report - IPR issues for entrepreneurs- Legal Aspects of Business and Creation of enterprise.	6	0
Financial Aspects of Business- Legal compliances for Business - Marketing and branding - Product Development- Digital Media.	8	0
DPR Essentials and Availing Bank Credit- Hygiene, FSSAI standards, Weights & Measures Regulation and Registration etc. and issues specific to food processing sector - Case and/or Success stories.	7	0
The Basic characteristic of Entrepreneur and Entrepreneurial Mind, Steps for Idea Validation, Intellectual Property Rights (IPR), Legal Issues for Entrepreneur, GST Basic Concepts, Marketing Plan, Product Planning and Development, Digital Marketing Platforms, Costing, Pricing & Profit Assessment, Bankable Project Report.	5	0
*Assessment by FICSI	4	
Sub total	50	10
*if required		<b>Total: 60 hr</b>