TRAINING MODULE: 
ENABLING SERVICE ENTERPRISES 
WITH DRE FOR PRODUCTIVE USES

Module 1 – Market Assessment and Marketing

Supporting the Institutional Development of CLEAN 
(Access to Energy in Rural Areas – IGEN – ACCESS)
Disclaimer

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<th>Description</th>
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<tbody>
<tr>
<td>AMCs</td>
<td>Annual Maintenance Contracts</td>
</tr>
<tr>
<td>CSR</td>
<td>Corporate Social Responsibility</td>
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<td>DSCR</td>
<td>Debt Service Coverage Ratio</td>
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<td>FGDs</td>
<td>Focussed Group Discussions</td>
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<tr>
<td>GoI</td>
<td>Government of India</td>
</tr>
<tr>
<td>ITDP</td>
<td>Integrated Tribal Development Projects</td>
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<tr>
<td>MSME</td>
<td>Micro, Small and Medium Enterprises</td>
</tr>
<tr>
<td>NGOs</td>
<td>Non-Government Organisations</td>
</tr>
<tr>
<td>NOCs</td>
<td>No Objection Certificates</td>
</tr>
<tr>
<td>O&amp;M</td>
<td>Operation and Maintenance</td>
</tr>
<tr>
<td>O/T</td>
<td>Opportunities and Threat</td>
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<tr>
<td>OEE</td>
<td>Overall Equipment Effectiveness</td>
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<tr>
<td>RE</td>
<td>Renewable Energy</td>
</tr>
<tr>
<td>RO</td>
<td>Reverse Osmosis</td>
</tr>
<tr>
<td>S/W</td>
<td>Strength and Weaknesses</td>
</tr>
<tr>
<td>SHGs</td>
<td>Self Help Groups</td>
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<tr>
<td>STP</td>
<td>Segmentation, Targeting, Positioning</td>
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<tr>
<td>USP</td>
<td>Unique Selling Proposition</td>
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About the Course
1.1 Setting the Context

1.1.1 What is a productive use?

A productive use can be defined as a routine economic activity undertaken in rural or urban areas to create and deliver a product or a service that has a commercial sale value to it. The goods or services are produced for the market, manufactured at a larger scale as compared to those meant for domestic consumption and sold for revenue generation and livelihood support.

There is a large variety of productive uses suitable for a rural setting, including supply of edible oil, woven fabric, tailored dress, bottled fruit pulp etc. Services include the provision of pumped water for irrigation, clean drinking water, grinding for flour and spices, carpentry, cold storage facility etc. Typically, mechanisation of these otherwise manual activities (powered sewing machines, weaving looms, motor-driven grinders, hullers, oil expellers etc.) increases productivity, efficiency and output, boosting revenue earning capabilities of these rural enterprises.

1.1.1.1 Why engage in productive uses?

There are multiple drivers for engaging in productive uses. While the most obvious driver is for creating livelihood options in rural areas, engaging in productive uses also helps create electricity demand. Most of the productive uses require electricity supply to generate income, and these can be energised through Renewable Energy (RE) solutions, provided by the existing RE based mini-grid operators as well as by prospective mini-grid operators.

There can be an instance where an existing RE based mini-grid has a drop in demand serviced. Consequent to implementation of intensive electrification under government schemes such as Saubhagya or Pradhan Mantri Sahaj Bijli Har Ghar Yojana Scheme, domestic consumers may choose to move away from the mini-grid, as in most cases grid based electricity is cheaper. Introduction of RE based productive uses can be one of the effective ways to compensate for the loss of load and help these existing mini-grids to ensure commercial viability of the plant. Concomitantly, productive uses by rural enterprises also result in improved economic and social well-being of individuals and the community as a whole.

Apart from the impact on existing domestic consumers, there is a strong business case for the mini-grid operators, especially for those operating at low plant load factors, for promoting RE based productive uses. RE based rural enterprises can help such plants improve the load utilisation and also act as a driver for economic development. These rural enterprises can help create further demand in the area serviced by the mini-grid, developing a virtuous cycle of RE driven economic development.

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1 The grid supply may not be as reliable as that provided by the mini-grid; however, the decision to move to the grid is primarily driven by the favourable financials of the supply. Subsidies (direct and cross) provided for rural supply is one of the key contributing factors for cheap grid supply.
Similar cases have been seen on-ground, for instance, in case of mini-grids developed by Mlinda in remote areas of Jharkhand and West Bengal. The company has an objective of helping remote villages achieve an economic growth of 15% to 20% on a year-on-year basis by promoting RE based productive uses. It supports in developing sustainable business models for various RE based productive use based rural enterprises that can be serviced by the mini-grid. Mlinda has been identifying appropriate rural enterprises under its own initiatives or in collaboration with local rural entrepreneurs that ultimately help achieve better plant operating efficiency and financial viability. Mlinda has assisted entrepreneurs to set up oil expeller units, cold storage, grinding machines etc. that creates a win-win situation for the budding entrepreneurs and Mlinda itself as a mini-grid operator. This case illustrates the symbiotic relationship that can exist between the mini-grid operator and the rural enterprises that can be powered through mini-grid.

1.2 Objective of the Training Manual

The objective of the training manual is to enable promotion of RE based productive uses in areas serviced by or expected to be serviced by mini-grids. The training manual captures all aspects of business planning and implementation that a mini-grid operator and/or rural entrepreneur (referred collectively as ‘rural entrepreneur(s)’ in the manual) need to be aware of while developing RE based productive use rural enterprise.
1.3 Structure of the Training Manual

There are technical and non-technical aspects that the rural entrepreneurs need to be trained on for developing rural enterprises. These include technical aspects related to electricity and connectivity to the mini-grids and business related aspects such as developing business plan and marketing plan, undertaking financial analysis and doing detailed market assessment etc. These are all diverse areas of work and require specialised skills to deliver on expected output. Given the diversity in the areas in which training is required, in order to improve delivery of the training and improve readability of the training manual, it has been structured in three separate modules.

**Market assessment and marketing:** The first module of the training manual focuses on the market related aspects of developing a rural enterprise. This module discusses in detail the process of market assessment based on which the most suitable rural enterprise can be selected/ prioritised. It also dwells into basics of marketing and provides details for developing a marketing plan for the rural enterprise, along with developing market linkages and facilitating access to markets. Lastly, the module also touches upon how to write a business plan for a rural enterprise.

**Technical:** The second module focuses on energy planning and technical aspects of integrating productive load into the mini-grid system. This covers areas such as productive load estimation, optimisation of load, load scheduling etc.

**Planning:** The third and final module focuses on planning aspects of developing the RE based rural enterprise. This module covers areas of financial planning and preparation of a business plan. The financial aspects cover, basics of finance, sources of funds, project planning for the rural enterprise and developing a bankable project proposal. This module also touches up the various institutional structures that the rural enterprise can adopt for setting up the enterprise.

The current module focuses on Module 1. The focus of the module is to help rural entrepreneurs understand the market that is to be catered to including consumer preferences, availability of backward and forward linkages, competition assessment and prioritisation among alternate rural enterprise options. The Module also dwells into marketing techniques and provides a framework for developing a marketing plan for the rural enterprise. This will help it access the market in a systematic and scientific manner. It also presents guidelines for writing a business plan along with developing a marketing plan.
### Module Agenda

Following is the agenda for the training programme covering the current module.

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>0930 to 1000</td>
<td><em>Introduction to the Training Programme</em>&lt;sup&gt;2&lt;/sup&gt;</td>
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<tr>
<td></td>
<td>Discussion on the training programme, its structure and expected outcomes</td>
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<tr>
<td>0930 to 1000</td>
<td><em>Session 6: Module 1A: Market Assessment and Prioritisation</em></td>
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<tr>
<td></td>
<td>Coverage -</td>
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<tr>
<td></td>
<td>• Understand the market to be serviced and map possible productive uses</td>
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<tr>
<td></td>
<td>• Map supply chain for each of the productive uses</td>
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<tr>
<td></td>
<td>• Assess potential of the identified productive uses</td>
</tr>
<tr>
<td></td>
<td>• Develop a framework for prioritising among identified productive uses</td>
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<tr>
<td>1130 to 1145</td>
<td>Tea</td>
</tr>
<tr>
<td>1145 to 1315</td>
<td><em>Session 7 (a): Module 1B: Marketing Techniques and Planning</em></td>
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<tr>
<td></td>
<td>Coverage -</td>
</tr>
<tr>
<td></td>
<td>• Market Linkages (Backward and Forward Linkages) for the productive use</td>
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<tr>
<td></td>
<td>• Develop 4 Ps of Marketing (Product, Price, Place and Promotion) for the rural enterprise</td>
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<tr>
<td>1315 to 1415</td>
<td>Lunch Break</td>
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<tr>
<td>1415 to 1545</td>
<td><em>Session 7 (b): Module 1B: Marketing Techniques and Planning</em></td>
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<tr>
<td></td>
<td>Coverage -</td>
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<tr>
<td></td>
<td>• Developing a Marketing Strategy for the rural enterprise</td>
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<td></td>
<td>• Interactive Session with relevant hands-on exercises for the participants</td>
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<tr>
<td>1545 to 1600</td>
<td>Tea</td>
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<tr>
<td>1600 to 1715</td>
<td><em>Session 8: Module 1C: Business Planning: Preparation of Business Plan</em></td>
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<td>Coverage -</td>
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<tr>
<td></td>
<td>• Need and utility of a Business Plan for a rural enterprise</td>
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<td></td>
<td>• Components of a Business Plan</td>
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<td></td>
<td>• Guidelines for preparing a Business Plan</td>
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<tr>
<td>1715 to 1730</td>
<td><em>Session 9: Summary of the Day and Quiz</em></td>
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<sup>2 Assumed that there will be separate participants for each day</sup>
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Description</th>
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</table>
| 0930 to 0945 | **Recap of Previous Days**<sup>3</sup>  
Discussion led by the participants on the learnings from the previous day |
| 0945 to 1015 | **Session 10 (a): Module 1C: Preparing a Business Plan: Briefing Session**  
Coverage -  
• Brief the participants of the team exercise session  
• Provide broad guidelines for developing a business plan |
| 1015 to 1315 | **Session 10 (b): Module 1C: Preparing Business Plan: Team Exercise**  
Coverage -  
• Participants divided in group of 5 with one rural enterprise assigned  
• Each group to prepare and present their Business Plan |
| 1315 to 1415 | Lunch Break                                                                                                                                          |
| 1415 to 1545 | **Session 11: Business Plan Presentation**  
• Each Group to make a 5 minute presentation on their business plan with a 5 minute interactive session with the audience |
| 1545 to 1600 | **Session 12: Training Wrap Up**  
• Closing Statement  
• Feedback from Participants  
• Learning and Next Steps |

<sup>3</sup> Assuming that all the participants will be present for the business plan exercise
Module 1A: Market Assessment and Prioritisation
### 2.1 Course Overview

<table>
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<th>Course Overview</th>
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<tr>
<td><strong>Course Title</strong></td>
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<tr>
<td><strong>Objective</strong></td>
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<tr>
<td><strong>Duration</strong></td>
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| **Course Modules** | - Understand the market to be serviced and map possible productive uses  
- Map supply chain for each of the productive uses  
- Assess potential of the identified productive uses  
- Develop a framework for prioritising among identified productive uses |
| **Target Group** | Existing mini-grid operators, potential local entrepreneurs, heads of Self Help Groups (SHGs), Non-Government Organisations (NGOs), local government units etc. |
| **Employment Linkages** | Mini-grid projects, companies engaged in development of renewable energy including rooftop solar projects, RE productive enterprise units |
| **Teaching/ Delivery Method** | - In class lectures  
- Online documentaries covering interesting real applications |
| **Assessment Approach** | - Interactive discussions on possible product or service enterprise options in respective areas |
| **Facilities/Tools Required** | - Computer  
- Projector  
- Paper/pencils |
| **Learning Outcomes** | At the end of the module, the participant is informed  
- What is a market assessment?  
- What are the components of market assessment?  
- How can a priority order be assigned to various rural enterprises based on a market assessment? |
2.2 Need for Market Assessment

Given that there are a host of productive uses that can be developed at Renewable Energy (RE) based rural enterprises, it is important that the rural entrepreneurs undertake detailed market assessment of these alternatives uses, prioritise based on the market assessment and identify the most suitable rural enterprise.

Along with prioritising among the various different rural enterprises from the entrepreneurs’ perspective, similar prioritisation may be required from the mini-grid operator perspective to decide the loads to be serviced. The objective of this Course is to help the rural entrepreneurs (mini-grid operator and the productive use entrepreneurs) assess various rural enterprises and prioritise among alternate options, enterprises that are most conducive for mini-grid as well.
2.3 What is a Market Assessment?

Market assessment can be defined as a detailed assessment of the market that is to be serviced by a product or service. It includes an assessment of the potential of the product or the service proposed and a comprehensive analysis of the market trends, competition, opportunities and the existing or proposed enterprise’s resources and constraints. In the context of RE based rural enterprises, a market assessment will likely be for various common rural productive uses such as an oil expeller unit, Reverse Osmosis (RO) water machine or a solar powered cold storage facility. All these products and services can be serviced by a mini-grid. For undertaking a market assessment for any of these rural enterprises, the components that need to be covered are presented in the figure below.

**Understand the market to be serviced**
- Preliminary mapping of the market to be serviced
- Undertake a market survey to understand the consumer preferences and expectations
- Sample to be representative of the target population
- Not limited to households, but other consumers as well (commercial enterprises/ small businesses, consumers beyond the rural boundary)
- Primary survey tools – Questionnaire Survey, Focussed Group Discussion (FGDs), Personal Interviews, Key informant discussions
- Secondary survey – Reports, district surveys/ census etc.

**Map the supply chain**
- Map availability of all the inputs and raw materials, such as land, mustard seed (for an oil expeller unit), water (for a RO unit), fruits and vegetables (for a solar cold storage)
- Establish connect with various supply chain suppliers (farmers for mustard oil or fruits and vegetables, bulk water suppliers for RO facility)
- Discussions with rural entrepreneurs operating in the geographical area to understand the supply chain
- Examine the labour requirement and availability for the rural enterprise

**Potential assessment of the rural enterprises**
- Estimate and validate the current demand
- Inputs from questionnaire and other primary survey
- Inputs from the market
- Existing supply data (if available)
- Examine the willingness and ability to pay of the consumers – primary survey insights

**Prioritisation**
- Final step – inwards looking strategy for rural enterprise
- Prioritisation based on following parameters
  - Market exists, with a potential to grow
  - Internal resource availability (finance, entrepreneurship, raw materials, energy requirement)
  - Incentives available - central or state governments
  - Suitable to the load mix of the mini-grid

Figure 1: Components of a Market Assessment
2.3.1 Step 1 - Understand the market to be serviced

The first step for market assessment is to understand the rural enterprise options that are complementary to mini-grid requirements. The rural enterprise can target a geographically defined area or category of consumer or a mix of both. For instance, the oil expeller can service only households or commercial food establishments located in nearby rural areas. Depending on the size of the oil expeller unit and the market linkages the rural entrepreneurs have, the product (in this case oil) can be sold to bulk consumers as well. If the rural entrepreneurs are enterprising and have the resources, understanding and linkages to a larger market, they can expand their reach geographically and can even sell the product through e-commerce platforms. The e-commerce platform can be for retail or bulk sale. The aim of the assessment is to understand the benefits that will accrue to the mini-grid and the rural entrepreneurs if rural enterprise is developed.

In order to understand the market to be serviced, the rural entrepreneurs will be required to collect data for profiling the market. The data could be collected through primary sources or secondary sources.

2.3.1.1 Study methods and approaches - collecting data in rural areas

Primary sources of data are first-hand sources from which data can be collected through a number of methods including questionnaire survey, structured personal interview or Focussed Group Discussions (FGDs) (to name a few). Typically, primary sources of data could be possible customers of the rural enterprise including consumers, shopkeepers, commercial establishments etc.

Data collection in rural areas needs to incorporate typical rural nuances as mentioned below.

Table 1: Key elements of a primary survey and rural nuances to be considered

<table>
<thead>
<tr>
<th>Study Element</th>
<th>Rural Nuances</th>
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| Respondent          | • Lower rates of literacy than in urban areas, which impacts the use of written material  
                       | • Conservative population makes it difficult to get individual responses from women & minority groups  
                       | • Respondents may not be ready to speak to outsiders/ strangers in some cases, or may have a tendency to refer to local leaders to answer on behalf of all  |
| Accessibility       | • Tough to access respondents due to geographical and possible terrain constraints. The timing for interaction has to be aligned to their agriculture engagements  |
| Data collection     | • Simplified data collection instruments are required for conducting the surveys - informal one to one/ FGDs, questionnaires with limited text, aided more with colours, illustrations and examples  |

4 The capacity of the mini-grid will be one of the constraints that will determine the size of the oil expeller unit. In case of a standalone unit, this constraint will not be binding.
2.3.1.2 Sampling

For data collection, an important determinant is the sample size and the sampling technique. The sample needs to be representative of the target population. The sampling/target population is not limited to households but includes other consumers such as commercial enterprises/small businesses and consumers beyond the rural boundary, who could be possible target consumers for proposed rural enterprises. To determine the sample size, there are a number of online tools available that can be accessed such as (https://www.surveysystem.com/sscalc.htm). Where the sample is heterogeneous\(^5\), in order to make it representative of the population, the sampling can be a stratified sampling. Here the target population is divided into strata and then random sampling can be taken from each stratum depending upon the percentage of population represented in each stratum. For instance, in case of sale of RO water enterprise, a representative sample will include representation of households across different income bands and different current sources of drinking water etc. For each of the parameter, the population can be divided into strata and then sample can be selected from each stratum.

\(^5\) A heterogeneous population or sample is a where members of the sample have different values for select parameters. There are many parameters on which a population or sample could differ, for instance, income levels, literacy rates, preferred choice of a particular product etc.
For the oil expeller unit if sampling has to be done through stratified sampling, the following steps will need to be undertaken:

- **Step One ‘Define population’** – If the area to be surveyed is the village, and there are 1000 households and 3 commercial institutions in the village, then all of them together become the population. If the target audience for the survey is only bulk consumers, then the commercial establishments can be defined as the population, and if the rural entrepreneurs plan to sell the oil outside the village to bulk consumers, then those will be defined as the population.

- **Step Two ‘Select relevant stratification and divide the population’** – Depending on the selected population for the survey, it will need to be stratified. Households can be stratified in terms of type of house, household size etc. The bulk consumers can be stratified in terms of distance from oil expeller unit, type of bulk consumer – shops, distributor or restaurant etc. Based on the strata selected, the entire population will need to be divided into the strata. For instance, number of kachha houses and pucca houses or distance from the oil expeller etc.

- **Step Three ‘Determine sample size’** - Based on the online tools available the sample size of the population can be determined. The size of the sample needs to balance between cost of undertaking the survey and the precision.

- **Step Four ‘Calculate the sample from each stratum’** - The sample size can be divided across the strata either equally, or it can be divided on a proportionate basis. The formula for proportionate strata sampling:

  \[
  \text{Sample size of the strata} = \left( \frac{\text{size of the sample}}{\text{population size}} \times \text{strata size} \right)
  \]

  If the sample size for the oil expeller is 100 and the proportion of kachha household in the population is 40% and the pucca households is 60%, then sample size for kachha household is

  \[
  \text{Sample Size of the kachha households} = \left( \frac{100}{1000} \right) \times 400
  \]

  From the above equation it is estimated that sample size for the oil expeller rural enterprise from kachha households is 40.

- **Step Five ‘Use simple random sampling to select the sample’** - The last step is to select the sample from each stratum through a random sampling.
2.3.1.3 Guidelines for using questionnaires for data collection

For primary data collection, the use of a survey questionnaire is one of the preferred modes for data collection. A survey gives the flexibility to collect quantitative data (e.g. about the size of the potential demand) as well as qualitative data (e.g. the opinions of the respondents on the things they would most value about a product) in a succinct manner. The following are some points that need to be considered while designing a questionnaire for a market assessment.

1. **Simple and short:** Survey questions need to be direct and easy to understand. In line with the time and attention span of respondents. Short questionnaires help provide clear, relevant responses.

2. **Logical order of questions:** The questions need to be sequenced such that there is a logical flow for the respondent.

3. **Quantifiable:** Quantifiable questions need to be carefully designed to provide accurate and measurable responses across all the data needed to get a good idea of the viability of the proposed business. For instance, in case of a cold storage unit, the questionnaire needs to focus on the type and amount of surplus produce available from each farmer for cold storage at different times of year in order to understand how seasonal demand for cold storage varies.

4. **Multiple choice answers:** Questions where the respondent is asked to choose from suitable multiple choices of answers will help provide more accurate responses for the study and also standardise the responses, making it easier to combine individual responses into an overall assessment of the market.

5. **Things to avoid:** (1) the text of the questions must avoid double negatives, since they are confusing to understand, (2) it must avoid the need for respondents to make calculations in order respond, and (3) it must avoid asking for personal data that is intrusive.

The questionnaire can be helpful in capturing the demographic profile of households (average family size, age and gender breakdown, income levels etc.), together with current demand patterns for the proposed product, prices of competing products, and consumers views on the need for an alternate product, the product quality sought etc.

A suggested questionnaire for determining the size of demand for solar cold storage is attached in Appendix 2. In case of multiple enterprises for which demand needs to be assessed, then similar questionnaires will need to be drafted for those rural enterprises as well. The target consumer for each of the rural enterprises may differ. For instance, for an oil expeller the target consumer will be households and commercial eateries or shops, while the target audience for a solar cold storage could be individual farmers or groups of farmers.
2.3.1.4 Guidelines for undertaking a Survey

When rural entrepreneurs are undertaking a survey, they need to consider the following:

1. **Conduct a test survey before commencing the survey on the ground**: Trying out the survey on a few examples of the target group will help check the possible responses that will be received for the survey and the questionnaire can be suitably amended if any questions are not clearly understood or do not deliver the information required.

2. **Brief the enumerators about the Survey**: The enumerators (the people who will carry out the survey) need to be briefed about the objective of the survey and the acceptable responses. This can also be achieved as part of the test survey mentioned above.

3. **Train the enumerators for the Survey**: Along with briefing the enumerators, they will need to be trained on how to interpret the questions and what the acceptable responses are for the same. If a particular method is to be employed to run the survey, for example focus group discussions, then the enumerators will also need to be trained on that method. Again enumerator training can be combined with testing the survey questions and method.

2.3.1.5 Secondary Sources of Data

Secondary sources of data are sources that already exist, and can be referred to, to understand past trends or other similar work undertaken. The data could be available at the village, district, state or country level, depending upon the data required and the market to be assessed. Secondary sources include data banks, such as Census of India, past reports or research studies etc. There is district level data available under the Census of India. There is state level census also available in select states that can be referred to. The secondary data can help in undertaking an initial assessment of the market to be serviced, for instance, number of households with access to clean drinking water. While working with secondary data, it is important that the context in which it was procured is understood. For instance, while Census data is a good data source, it is collected once in ten years. If referred to for market assessment, the data will need to be suitably adjusted based on decadal growth rates observed for the particular data set.

**Expected Outcome**: This first step provides an initial assessment of the markets to be serviced by a proposed rural enterprise. It is expected that the survey will help define the boundaries of the expected market to be serviced for the enterprise. The survey data collected under step 1 will be used in other steps as well.
2.3.2 Step 2 - Map Supply Chain

The second step for undertaking the market assessment is to identify all the inputs required for delivery of the product or service and map the supply chain for them. Here, as this is a preliminary assessment, multiple supply options may be identified.

There is a range of inputs that need to be sourced for various rural enterprises. For instance, in case of supply of RO water supply, along with the equipment, the rural entrepreneurs will need to acquire resources including land, water and labour. During the market assessment, along with mapping the inputs required, an assessment will also be required of the electric load the enterprise and how it could be serviced by DRE based mini-grid.

Vendors/suppliers for various inputs will also be needed to be mapped to examine the implementation possibility of the rural enterprises. It is suggested that the mini-grid operator may connect with existing rural entrepreneurs to understand the market and the input suppliers/vendors. It is suggested that suppliers are geographically close to the enterprise to ensure a sustained supply of inputs at minimal transportation costs, provided quality is not compromised. For supply of the final product (Oil, RO water and cold storage) the potential assessment and market mapping is explained in Step 3.

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7 This will be part of the technical assessment discussed in Module 2
2.3.2.1 Estimate Labour Requirement

An important input that needs to be assessed as part of the market assessment is the availability of required skilled labour to operate and manage the rural enterprise. As part of the market assessment, rural entrepreneurs will be required to determine their labour requirement and their quality. Likewise, for a rural mini grid operator thinking about expanding into productive use themselves, the labour available at the mini-grid plant may or may not have the relevant skills and hence the additional assessment of the labour requirement may be needed. To do this, the rural entrepreneurs or mini-grid operator will need to estimate the labour requirement and skills for the new enterprise that is being considered and compare that to the labour and skills they have in their existing businesses to find gaps. The list of likely skills required for a rural enterprise and their respective tasks are presented in the table below. These skills will need to be mapped against the existing skills available and for the gaps identified the training requirements will also need to be identified. The table below suggests the format in which the information can be collated by the rural entrepreneurs.

**Expected Outcome:** For step two it is expected that all the sources for supply inputs, including labour, is mapped.

Table 2: Format for examining adequacy of existing labour and training requirements (ILLUSTRATIVE)

<table>
<thead>
<tr>
<th>Function</th>
<th>Tasks involved</th>
<th>Skills required for the enterprise</th>
<th>Existing relevant skills</th>
<th>No. of additional labour/ staff required</th>
<th>Details of any skill training required for existing or new labour / staff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial</strong></td>
<td>• Expenses account</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Revenue earnings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ledger balancing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Budgeting for spares, maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operational</strong></td>
<td>Everyday operations of machines, periodic maintenance tasks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Technical</strong></td>
<td>Repair and troubleshooting, how to fix, engage with mechanics &amp; service personnel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marketing/ Sales</strong></td>
<td>Engage with current and prospective customers on products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.3.3 Step 3 - Potential Estimation

Market potential as a concept needs to be understood from two levels – aggregate local enterprises level and individual rural enterprise level. Aggregate local enterprises can be understood as a group of rural entrepreneurs providing the same service to a defined geography. For instance, group of oil expellers suppliers present in a village servicing the village and the nearby geographies. Market potential from the aggregate local enterprises perspective is the revenue potential for these rural enterprises through the sale of the identified product and/or service in an identified geography.\(^8\)

For estimating the market potential for the industry following is the formula can be used:

\[
\text{Market Potential (aggregate)} = \text{Total number of potential consumers} \times \text{expected average selling price} \times \text{average annual consumption}
\]

The number of potential customers can be determined through a primary survey or through secondary data sources. Expected average selling price is market data and can be collected from the market. For determining the average annual consumption, data can be collected from a primary survey of the consumers, feedback from market and referral to the industry.

For estimating the market potential for the aggregate local enterprises, the geographic area considered is the geography serviced by the various rural enterprises.

**Illustration 1\(^9\):**

There are 4 oil expellers, servicing the village (A) itself and 5 more villages (B to F) located nearby. The average price of the oil sold in the area is about INR 115/ bottle and the average consumption of about 3 bottles a month per household. There are 4 bulk consumers as well, who consume about 10 bottles a month. The number of households per village is presented in the table below.

<table>
<thead>
<tr>
<th>Name of the Village</th>
<th>Number of households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village A</td>
<td>100</td>
</tr>
<tr>
<td>Village B</td>
<td>150</td>
</tr>
<tr>
<td>Village C</td>
<td>50</td>
</tr>
<tr>
<td>Village D</td>
<td>85</td>
</tr>
<tr>
<td>Village E</td>
<td>135</td>
</tr>
<tr>
<td>Village F</td>
<td>160</td>
</tr>
</tbody>
</table>

\(^8\) This geography can be aggregation at the block, village, district or state level. It is dependent on the market serviced by these enterprises together.

\(^9\) Simplifying assumptions

1. One consumer purchases oil from one oil expeller unit only. 2. No consumer purchases oil from any other oil expeller unit except the 4 mentioned.
The market potential for oil expellers in the village is: There are 680 households and 4 bulk consumers to be serviced.

\[
\text{Market Potential}^{\text{aggregate}} = \left(\left(680 \times 3 \times 12\right) + (4 \times 10 \times 12)\right) \times 115
\]

\[
\text{Market Potential}^{\text{aggregate}} = \text{INR } 28,70,400 \text{ annually}
\]

The above exercise can be expanded to include a larger set and type of consumers. The potential calculation is a dynamic assessment and as market conditions change (e.g.: increase in number of consumer or supplier) the potential will need to be re-assessed.

Apart from estimating the market potential of the aggregate market as described above, there are secondary sources that can be referred by the rural entrepreneur to understand the market potential of the product/service. These sources can be industry specific estimations done by an industry body such as FICCI or CII or Gogla\(^{10}\).

The potential estimation has to be done at the enterprise level as well, to ensure that the proposed rural enterprise has an adequate market to cater to and ensure profitability. For the enterprise the potential estimation also needs to be across different enterprise options. The potential estimation will need to be done from two perspectives:

- **Perspective of the mini-grid operator:** It would be required to estimate the load that the rural enterprise will be able to cater and is it complementary to the generation curve and existing load curve of the mini-grid.

- **Perspective of the rural entrepreneurs:** For the rural entrepreneurs the perspective will be to estimate the market potential held by various rural enterprises and based on which the most suitable rural enterprise will be identified.

The market potential for the rural enterprise will take into consideration both size of the rural enterprise and size of the mini-grid to ensure that its load is serviced, and the lower value of the two will be the market potential for the rural enterprise. The decision tree presented in the next page summarises the process to be followed by the rural entrepreneurs.

\(^{10}\) Gogla is a membership based not-for-profit industry organisation for the off-grid solar energy Industry.
A separate training module is available which looks at the technical aspects of understanding electrical loads from productive uses for mini-grid operators (which would help answer the question ‘What is the technically feasible size of a rural enterprise that a mini-grid could support?’).

The following sets out the steps to be taken to determine the potential of the rural enterprise from the perspective of the rural entrepreneur. Estimating the market potential is a business exercise that determines the market size that can be serviced by the rural entrepreneur and helps in business and marketing planning as well as budgeting for the enterprise.

The following formula can be used to estimate the market potential for a rural enterprise.

**Illustration 2:**

In a village with 50 households, it is proposed that an oil expeller unit will be set up.

\[
\text{Market Potential (rural enterprise)} = \text{Total number of potential consumers} \times \text{percentage of consumers expected to be serviced} \times \text{expected average selling price} \times \text{average annual consumption}
\]
The production capacity of the expeller is about 100 bottles a month with an expected average selling price of INR 100/bottle. The expected market to be serviced by the expeller is 40%, where the annual oil consumption per household is about 60 bottles.

\[
\text{Market Potential}_{\text{rural enterprise}} = 50 \times 40\% \times 100 \times 60 \\
\text{Market Potential}_{\text{rural enterprise}} = \text{INR 1,20,000 Annually}
\]

The rural entrepreneur recognises that there are multiple players already present and therefore decides to price the product at a price lower to the prevailing price. With this aggressive pricing, the rural entrepreneur expects to capture 40% of the market. The percentage of consumers expected to be serviced is the expectation of the rural entrepreneur. This expectation is an important assumption and needs to be based on market reading of the entrepreneur. This assumption may be required to be re-visited as the business progresses.

There can be one scenario where the market potential for the rural enterprise is greater than the aggregate market potential. Here the rural entrepreneurs need to re-assess their decision to invest in one particular rural enterprise. This can be an elimination criterion for the entrepreneurs when evaluating multiple enterprise options.

The rural entrepreneurs need to estimate market potential for all the rural enterprise options being considered to make an informed investment decision.

For potential estimation (as presented above), the data that is required can be obtained from the market survey conducted. Estimates about current demand level for the identified product or service (oil, RO water, surplus food and vegetable for storing, rice production etc.) can be obtained from the survey. It is suggested that the survey also elicit responses for the willingness and the ability to pay for the product or service (please see the last question of the questionnaire in the Appendix 2). Both these inputs can be helpful in determining the average price that can be charged for the product or service. Along with the responses provided in the survey, the current price that the consumers pay for the product or service will also act as a benchmark to determine the average price of the product.

**Expected Outcome:** By the end of the third step, it is expected that the market potential for different rural enterprises will be determined. The potential estimation will help bring the rural enterprises to one metric to ease comparison.

**2.3.4 Step 4 - Prioritisation**

The last component of a market assessment is prioritisation. As mentioned above, there could be different rural enterprises that a rural entrepreneur or a mini-grid operator themselves could invest in that would contribute to the development of the rural area and be financially viable. However, given the limitation of resources\(^\text{11}\) and the technical capacity of the mini-grid to service various loads, a prioritisation needs to be developed for the different rural enterprises. This will need to be done either:

- By the mini-grid operator themselves (if they are the one investing in new productive uses) or
- If it is a separate rural entrepreneur proposing to invest and tap excess power available from a mini-grid, then by the rural entrepreneur in conjunction with the mini-grid operator (who will be able to advise on the technical constraints of the mini-grid).

---

\(^{\text{11}}\) Resources limitation can be in terms of physical (such as land), financial, entrepreneurial and/ or labour resources
The prioritisation will be a culmination of all the inputs received in the earlier steps of market assessment. This is a preliminary prioritisation of rural enterprises, based on which preferred rural enterprises can be identified. For the prioritised rural enterprises a detailed analysis will be required (discussed in the subsequent section) to commission these enterprises. A suggested framework for prioritising rural enterprises is presented in the table below.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Oil Expeller</th>
<th>RO Water</th>
<th>Solar Cold Storage</th>
<th>Rice Huller</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there market for sale of the product/service (Yes/ No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market potential of the rural enterprise (INR per year)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can the rural enterprise be serviced by the mini-grid? (Yes/ No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity Load requirement (kW)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the load requirement complementary to load curve of the mini-grid? (Yes/ No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land requirement (in km square/ m square)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the required land available? (Yes/ No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of the land or rental of the facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broad investment requirement for the rural enterprise (in INR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there adequate financial capability to fund the rural enterprise (Yes/ No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key raw material for the rural enterprise</td>
<td>Mustard seeds</td>
<td>Water</td>
<td>Fruits and vegetables</td>
<td>Rice</td>
</tr>
<tr>
<td>Is the raw material supply adequate? (Yes/ No)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vendors that can be tapped for supply of inputs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour requirement (No.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour requirement (quality – needs training)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12 In order to present a comprehensive view on prioritisation, the table also includes technical parameters, data for which can be obtained post the technical analysis.
**Expected Outcome:** From the process and table above a priority order will be determined for implementation of the rural enterprises.

Once the enterprises are identified the next step will be to develop a marketing plan for the product. This is discussed in the next course.
Module 1B: Marketing Techniques
## 3.1 Course Overview

<table>
<thead>
<tr>
<th>Course Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Title</strong></td>
</tr>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td><strong>Duration</strong></td>
</tr>
</tbody>
</table>
| **Course Modules** | • Market Linkages (Backward and Forward Linkages) for the productive use  
 • Develop 4 Ps of Marketing (Product, Price, Place and Promotion) for the rural enterprise  
 • Developing a Marketing Strategy for the rural enterprise  
 • Interactive Session with relevant hands-on exercises for the participants |
| **Target Group** | Potential local entrepreneurs, heads of SHGs, FCGs, NGOs, local government units |
| **Minimum Entry Level** | 10th standard pass, ITI diploma/vocational training (desirable), with language skills to comprehend, read & write at basic levels |
| **Employment Linkages** | Mini-grid plants as operators, solar IPP plants as O&M service providers, RE productive use enterprises |
| **Teaching/ Delivery Method** | • In class lectures  
 • Voice byte/video recording of field practitioner in following a particular institutional model  
 • Case Studies  
 • Role-play/ interactive exercises |
| **Assessment Approach** | • Interactive discussions  
 • Spot quizzes |
| **Facilities/Tools Required** | • Computer  
 • Projector |
| **Learning Outcomes** | At the end of the module the participant is informed:  
 • What are market linkages? What is the difference between forward and backward linkages  
 • Understand what a supply chain is?  
 • Basics of Marketing and how to develop marketing plan for the identified rural enterprise |
3.2 What are market linkages?

Market linkages are the linkages rural entrepreneurs build end-to-end, linking product creation to product sale. It is the value chain a product follows through its lifetime - right from accessing and utilising the raw materials to reaching the end consumer and monetising the product. Linkages are a series of interactions between firms for transmission of goods, technology, human resources and information. The linkages are strong when output and sub-outputs of one producer act as inputs for other producers. Linkages are important for sustainable rural enterprises as an efficient linkage will ensure cost effective and seamless operations of the enterprise.

3.2.1 How backward and forward linkages will be effective for the business?

Market linkages are two types - backward and forward. For example, for an oil expeller unit, linkages to procure seeds from the farmer, transport linkage (if any) between the farmer and the expeller unit and other raw materials such as the electricity provider, equipment supplier etc. will be the backward linkages. Forward linkages will include the access the enterprise has to a market and ultimately an end consumer. In this oil expeller example, it is assumed that packaging and oil filtration and refining processes are all part of the expeller unit (See figure below). On the other hand, if the preferred enterprise is solar RO water business, then the backward linkages will be limited to the procurement of the technology only, as water, which is the raw material will be available onsite and in most cases free of charge.

![Figure 3: Representation of backward and forward linkages](image-url)
Each of the components of the value chain is discussed in the following sections.

### 3.2.1.1 Raw material

For the procurement of raw materials, a rural enterprise needs to ensure that the quality and timeliness of supply is assured. The options that the enterprise can have to procure the raw materials are as follows:

- **Direct procurement from local farmers:** In case of absence of adequate storage facilities, farmers sell off their produce immediately after harvesting. Rural entrepreneurs can target procurement from such farmers immediately after the harvesting season as the price of the produce is at its minimum owing to the glut of supply.

- **Purchase from nearby markets from farmers and retailers:** Depending upon the amount of raw material required rural enterprises can procure raw materials from nearby areas from farmer producer organisations or retail companies. The cost of raw materials (inclusive of transportation) will usually be higher compared to the first option. In the case of bulky inputs (such as wood), or perishable products (such as fruits and vegetables) the rural enterprise may require their own storage facility at the site or may rent such services.

- **Contract farming:** For larger rural enterprises, a cost effective and assured procurement process is through contract farming. It is a win-win situation for farmers and the enterprises. While the farmers get an assured buyer at a pre-agreed price for a pre-defined amount, the procurers get the produce of their choice of quality and pre-defined price, close to the processing site. The Government of India is in the process of finalising draft Model Contract Farming Act, 2018. The draft Act aims to create a policy and regulatory framework to support contract farming in India. In the meantime, farmers engage with entrepreneurs informally to supply the produce which is referred to as contact farming.

### 3.2.1.2 Storage Facility

The area of storage will depend upon the type of raw material, its amount, the frequency of its use (including seasonal fluctuations in requirement) and the cycle of the plant itself. As mentioned earlier, the most cost-effective purchase of raw material will be during the harvesting season. However, that timing may not concur with the production cycle of the rural enterprise. In such cases enterprises can either own storage facilities or rent such facilities, depending upon what approach is most economic. A large storage facility will require substantial working capital. Further, as a storage owner and operator, the rural entrepreneurs will then need to invest in risk mitigation strategies for concerns such as pests, seasonal hazards (e.g. mould during the rainy season), and over time, the potential deterioration in quality of the material, as well as any force majeure incidents such as earthquake, fire etc. It is generally therefore prudent to maintain stock for a couple of months as opposed to one year\(^{13}\), to minimise such risks while ensuring other operations of an enterprise are not compromised. Typically, the storage facility should be near to the plant. It is recommended to get the stock insured to mitigate the force majeure risks including fire or unseasonal changes etc.

\(^{13}\) Depending on the cycle of production of the raw material
3.2.1.3 Machinery and Equipment

Machinery and equipment are cost-intensive, one-time capital investments that are central to production. Identification and selection of appropriate technology for the required machinery is crucial. For identification and selection of machines the rural entrepreneurs ought to undertake the following tasks beforehand:

- Finalise production plan and its schedule;
- Finalise raw material including quality of raw material;
- Finalise power source and back-up, if required;
- Finalise space for installing machinery;
- Get all approvals and No Objection Certificates (NOCs).

An enterprise during operations needs to know about the production and efficiency of the machines, which include the following parameters:

- **Throughput**: Or simply said output i.e. average number of units produced on a machine, line, unit or plant over a specified period of time, e.g.: units per minute. Throughput of the machineries has a substantial bearing on the return of investment, hence is an important metric for comparison.

- **Overall Equipment Effectiveness (OEE)**: OEE assesses quality, speed and downtime of the machinery and indicates its overall effectiveness. While finalising the machine for a plant it is advisable to enquire with other users or equipment supplier about the performance of the machine or OEE score. Higher the score, the more cost-effective is the production line.

- **Availability**: Longer time required for the maintenance of the machinery will lead to production loss. The technology supplier needs to be enquired about the downtime of the equipment for regular operation and maintenance (O&M) of the plant. Lower the downtime better is the output efficiency of the plant.

Apart from the above, key aspects that rural entrepreneurs need to consider for market linkages are:

- Estimation of the amount of raw material required periodically\(^\text{14}\) (daily, weekly, monthly etc.)

- Arrangements for storage facilities for the required amount of raw material

- Awareness and adoption of applicable government schemes and programmes to explore the possibilities of getting subsidy pertaining to backward and forward linkages\(^\text{15}\)

- Market study and comparison of price and performance of different variants of machinery and equipment required including any annual maintenance contracts (AMCs) needed.

---

\(^{14}\) In case of contract farming, all terms and conditions must be finalised and agreed upon and agreements duly signed.

\(^{15}\) This needs to be done at a much earlier stage so that approvals and NOCs are in place as well as the enterprise can take advantage of any financial incentive available.
3.2.2 Is there any support available for establishing linkages?

Support is available from Government of India\textsuperscript{16} (GoI) to rural enterprises in the form of capital subsidy, interest subsidy, credit risk guarantee, training and capacity building, etc. It is imperative for the entrepreneurs to be updated on such existing schemes and programmes and their applicability.

The first step in the process will be to identify the relevant department of the State/ Central Government. Exploring the website of the relevant department to know more about any existing scheme / programme is one way of finding out more, along with meeting the requisite personnel in the department. It may also be necessary to liaise with the relevant Central Government department to understand the applicable incentives. The Ministry of Micro, Small and Medium Enterprises (MSME) is relevant in this respect. It has formulated programmes and schemes to support enterprises. These schemes cover capital subsidy, credit guarantee and training aspects. The most useful site in this context will be of the MSME that can be visited using the URL: https://msme.gov.in/all-schemes

- Horticulture;
- Milk and Milk products;
- Meat, Poultry, Fishery, Marine, Piggery;
- Ready to eat and Ready to cook products
- Honey, Coconut, Spices, Mushrooms; and
- Retail shops for perishable Food Products

\textsuperscript{16} In some cases from state governments as well
Grants of up to 35% of the project cost are provided under the scheme for most states and up to 50% for North Eastern states, Himalayan States, Islands, and Integrated Tribal Development Projects (ITDP) areas, subject to a maximum of INR 5 crores per project.

The nuances of forward linkages are captured in the next session, focusing on marketing. Marketing is a tool to help rural enterprises reach out to consumers and monetise the value created from their products. Key marketing concepts are discussed below.

### 3.3 Need, Want and Demand

Rural entrepreneurs need to be aware of not only their product, but also the segment they cater to as well as the willingness and ability to buy in that segment.

A market can be defined as “consisting of all the potential customers sharing a particular need or want who might be willing and able to engage in exchange to satisfy that need or want”

![Marketing Concept](image)

**Basic Needs**
- Basic requirements - require no marketing push

**Wants/Desires**
- Preferences - require marketing push

**Willingness to buy**
- Definite Preferences backed by willingness to buy and ability to pay - require focused marketing push

**Ability to pay**

**Figure 4: Need, Want and Demand - Understanding the Market**
3.4 Orientation towards market place

### 3.4.1 Understanding buying behaviour

Understanding the needs and wants of the consumers is essential for rural entrepreneurs. In order to do so, it is suggested that the entrepreneurs undertake a market assessment. There are standard frameworks that can be adopted, such as the 7 O’s of Marketing.

Table 5: Applying 7 O’s of marketing for the oil expeller rural entrepreneur

<table>
<thead>
<tr>
<th>The 7 O’s</th>
<th>Oil Expeller Case (Product: Oil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who constitutes the market?</td>
<td>Occupants</td>
</tr>
<tr>
<td>What does the market buy?</td>
<td>Objects</td>
</tr>
<tr>
<td>Why does the market buy?</td>
<td>Objectives</td>
</tr>
<tr>
<td>Who participates in the buying process?</td>
<td>Organisations</td>
</tr>
<tr>
<td>How does the market buy?</td>
<td>Operations</td>
</tr>
<tr>
<td>When does the market buy?</td>
<td>Occasions</td>
</tr>
<tr>
<td>Where does the market buy?</td>
<td>Outlets</td>
</tr>
</tbody>
</table>

Exercise: The participants can be asked to undertake a 7 O’s assessment for their selected rural enterprise

### 3.4.2 Breaking down marketing strategy - What factors influence buyer behaviour?

Developing a marketing strategy for a rural enterprise needs to take into consideration a number of parameters that impact consumer/buyer behaviour. The strategy needs to take into account the macro parameters that impact behaviour such as cultural nuances and season, as well as the micro level parameters such as the personal specifications of the buyer. The figure below lists the parameters that need to be considered while developing the marketing strategy.
• **Cultural:** Culture encompasses the social and economic setting in which the consumer resides. For instance, a number of enterprises plan new product launch or give heavy discounts during the festival time, as spending is expected to be at the peak. Hence, it has been seen that a number of offers are made by enterprises close to Navratri or Diwali.

• **Social:** The social status of the consumer also has a bearing on the buyer choices and hence they need to be duly incorporated in the marketing strategy. For instance, in Northern India, the sizes of houses are larger and hence the sizes of economy packs purchased by them is also larger as compared to those purchased in South India.

• **Personal:** Personal factors such as age, life-cycle stage, occupation, income levels etc. also have a bearing on buyer choice and hence need to be suitably incorporated in the marketing strategy. For instance, given the lower and cyclical nature of disposable income in rural areas in India, fast moving consumer goods companies have introduced smaller packages – sachets to promote offtake in these areas.

• **Psychological factors:** These factors are personal to the consumers and impact the buying behaviour. Parameters such as motivations, perceptions, beliefs etc. are some of the factors that need to be considered. For instance, there are products that specifically play on consumers’ motivations and aspirations, for instance the high-end cars segment.

While developing a market strategy, a rural entrepreneur needs to understand their target consumers buying behaviour and how this is impacted by the parameters discussed above. This needs to be understood so that suitable forward linkages are drawn by the entrepreneur.

Exercise: For each of the rural enterprise map the parameters that impact consumer behaviour.
3.5 Segmentation, Targeting, Positioning (STP)

3.5.1 What is STP of Marketing?

Products cater to a wide variety of consumers. There are some products such as table salt that have a mass market, whereas some products have a very niche market such as low sodium salt (which caters to people with a specific health condition).

Rural entrepreneurs service a heterogeneous market and hence need to understand the market and consumer requirements and convey their product’s uniqueness to match the consumer requirements. The entrepreneurs need to understand all these nuances – segmentation, targeting and positioning - to sell their product well. These nuances are discussed below.

3.5.1.1 What is Segmentation?

Segmentation is the first step for developing the marketing strategy for the product. Consumers are diverse in nature and differ in terms of socio-cultural preferences, demographics, income levels, family structures etc. Through segmentation, this diverse group of consumers is divided into smaller, more similar segments so that the rural entrepreneurs can better target their product to the most relevant segment. The segmentation is done so that the rural entrepreneurs can offer their products to the consumers who have a specific need that is satisfied by that particular product. Also, it is expected that consumers in the same segment will respond in a similar manner to a marketing message.

**Example 1:** It is expected that the more affluent consumers in a rural area, who are educated and are aware of the health benefits of cold pressed oils, will be the segment that will be willing to buy oil produced through a cold press, despite it being more expensive than the oil produced in an oil expeller unit.

**Example 2:** It is expected that rural, upper-class rich farmers will own a smart phone, tractor, utility vehicle etc., and will be interested to look at new agriculture interventions (such as new varieties of agri input equipment, drip irrigation equipment, hybrid seed varieties, greenhouse based farming techniques etc.) to improve their productivity.
A market can be segmented based on the parameters presented in the figure below.

The factors mentioned above are the basis for creating segments. Geographic segmentation is the easiest to undertake and in most cases is relevant. The behavioural segmentation provides insights into the consumption patterns of the consumers. However, to understand the behaviour a survey may be required. The following are some examples of segmentation that may be adopted in the rural enterprise context:

- **Landholding**
  - Landless, Marginal, Small, Medium, Large
- **Irrigation status**
  - Irrigated, Unirrigated
- **Cropping pattern**
  - Commercial or food crops, seasonal
- **Education**
  - Illiterate, below 10th, Below 12th, Graduate and above
- **Location**
  - Near urban centres, remote and rural
- **Sociological**
  - Landlord, small farmer, tenants
- **Occupation**
  - Agriculture, fishing, salaried, labour
3.5.1.2 What is Targeting?

Targeting is the next step for developing the strategy. Based on the segmentation process, the rural entrepreneurs identify the most relevant consumer categories for the product. Of the segments identified, in this step, the rural entrepreneurs identify the segment(s) it will target. There are predominantly three targeting strategies that the entrepreneur can adopt (See figure below).

![Figure 7: Various Targeting Strategies](image)

Depending on the product, identified segments and the resources available with the rural enterprise, a targeting strategy can be selected from the following:

1. **Undifferentiated Marketing** - This is mass distribution and marketing of the product. A key requirement here is that the product needs to be universal in nature. For instance, a rural entrepreneur can adopt a mass targeting for its oil produced through the oil expelling unit. It is a universal product that is required by all consumers. Aerated drinks are another example of where one product is targeted to all relevant segments, across geographies, including rural or urban.

2. **Differentiated Marketing** - This is when the rural entrepreneurs need to differentiate the product based on the segment to be catered. For instance, solar pump supplier can target the smaller farmers with smaller 3 HP pumps while bigger farmers can be targeted with larger 5 HP pumps.

3. **Single Segment Concentration** - is for products that cater to a very specific segment. For instance, if the rural enterprise is producing organic cold pressed mustard oil, in the rural context, it can be targeted to the rich, educated professionals in and around the rural area. Another niche product could be bottled RO water, which would need to be targeted to consumers that are sensitive to the need for clean drinking water and are willing to pay for water, which is usually a product available for free.

The choice of targeting will be dependent upon the resources available with the rural enterprise and market readiness to buy the product.
### 3.5.1.3 What is Positioning?

Positioning is the process of setting a distinctive image of the product in mind of the target segment. The rural entrepreneurs need to identify the competitive advantage their product has compared to the competition and communicate the same to the consumer. The process of positioning is summarised in the figure below.

The positioning strategies can be developed for a product, highlighting the product features, benefits or its competitive edge over the other similar products. The following are some examples of positioning strategies for mustard oil obtained from an oil expeller unit:

- **Specific Product Feature:** Our mustard oil is an organic product
- **Benefits, Problem-solutions or Needs:** it is a pure oil, extracted from mustard directly procured from farms and leads to healthy and tasty food
- **Specific Usage:** Our oil is very good for deep frying
- **User Category:** for health-conscious people as this is chemical free
- **Against other products:** Our oil is chemical free unlike other brands available in the market that give pungent smell and yellowish colour because of chemicals used
- **Product Class Dissociation:** Our oil is healthier and tastier than vegetable oil. Here mustard oil is positioned against the competition of another class of oil

---

**Exercise:** Develop a positioning strategy for select rural enterprise (Group of 2 participants)
3.6 Marketing Mix - 4Ps of Marketing

The second component of a marketing strategy is to develop a marketing mix for the product, which would help in improving its positioning. There are 4 components of marketing - Product, Price, Place and Promotion. Rural entrepreneurs must choose combinations of the 4Ps that would give them the highest market share at the lowest cost possible. The figure below summarises the 4Ps of Marketing.

- **Product**
  - Address requirements/needs of the consumers
  - In line with their habits/beliefs/customs

- **Price**
  - Price sensitive consumers - value for money derived
  - A number of pricing that can be adopted

- **Place**
  - Dependent on product, market and other considerations
  - Ecommerce - the new trend

- **Promotion**
  - Communicate with the consumer to influence purchase decision
  - Types - advertising, personal selling, sales promotion and publicity

Figure 9: 4Ps of Marketing
3.6.1 Product (or Service)

The 1st P is Product. The produce of the rural enterprise, the product or service, is the connection between the rural entrepreneurs and the consumers. The consumer needs to be convinced that the product meets at least one of its requirements. Therefore, rural entrepreneurs need to not only define the product, but also sensitise consumers to its utility. A perception needs to be built of the product or service in line with the consumers’ requirements. The product needs to fulfil specific requirements of the consumer, for instance, mustard oil for cooking or RO water for drinking. It needs to be in line with the habits of usage and purchase, income levels of the consumers, and their customs and beliefs etc. As mentioned already, given the price sensitive nature of the Indian consumer, and the comparatively lower income levels in the rural area, many companies

3.6.2 Price

India is a price sensitive market and, for consumers with seasonal or low levels of income, the price is an important parameter for making a purchase decision. Consumers are sensitive to value for money concept. There are a number of pricing strategies that entrepreneurs can adopt. These include penetration pricing (low pricing to gain market share), odd pricing (like Bata INR 995.99 pricing), special event pricing (discounts on special days), economy pricing (no frills only good product/ service) etc. Offering discounts to consumers is also a core strategy for pricing. For rural entrepreneurs, the pricing strategy is closely linked to the value for money the consumers will assign to the product and it needs to be closely linked to the ability of the consumers to pay. For instance, ordinary mustard oil will need to be priced close to its competition, as there is no particular value-add the product offers. However, if it is organic mustard oil, then the entrepreneurs may be able to charge a premium from the target consumers.

3.6.3 Place

Place is an important parameter from the rural entrepreneurs perspective. This relates to the setting up of a distribution channel and/ or supply chain for making the product available to the consumer. There are a number of channels of distribution that the entrepreneurs can tap. The type of product (shelf- life, ease of transfer, size of the product etc.), market (size of market, size of consumer purchase, geographical spread etc.), and other factors (resources available to the rural enterprise, cost of channel, production level, seasonality of demand etc.) all need to be taken into consideration when selecting the channel of distribution. Retailers (shops closest to the consumer), wholesalers (bulk procurers) and agents/ stockists (bulk suppliers that take a commission for stocking) are some of the channels that the rural entrepreneurs will need to take into consideration while deciding on the supply chain. Some of the channel options that can be considered by the entrepreneurs are presented in the figure below.
As mentioned earlier, the rural entrepreneurs can decide the distribution channel based on product, market and other considerations.

The advent of the internet and the availability of cheap data have helped increase the penetration of smart phones, and this has led to the opening of another channel of distribution – Ecommerce. There are a number of platforms rural entrepreneurs can use to sell their products, including websites such as Flipkart, Amazon, and India-mart. The box below discusses the process that rural entrepreneurs can follow for utilising e-commerce as a channel of distribution.
E-commerce has opened a new channel of distribution for rural enterprises to utilise. Online portals such as Flipkart and Amazon\(^\text{18}\) are places where rural entrepreneurs can list their products and be able to access a larger market than through other means, with minimal investment. Both Flipkart and Amazon provide logistical support to the dealer/vendor (in this case the rural entrepreneurs) for supply of the products.

The entire process of becoming a vendor with these two e-commerce websites is delineated on their respective websites\(^\text{19}\). To register on these websites the entrepreneurs are required to fill a small form and attach the following documents\(^\text{20}\):

- PAN Card (Personal PAN for business type “Proprietorship” and Personal + Business PAN for business type as “Company”)
- GSTIN/ TIN Number (not mandatory for few categories)
- Bank account and supporting KYC documents (Address Proof, and Cancelled Cheque)

Once registered, the entrepreneurs become a seller with these platforms. There are no charges for listing products on these websites, but charges are deducted once an order is confirmed. The charges/pricing for websites differ, hence need for careful examination of terms and conditions by the rural entrepreneurs while registering on these sites. The following are illustrative charges that are applicable for trading on the Amazon website:

1. **Referral Fee:** This is the fee applicable based on product category the vendor caters to, with 3% being the least charges
2. **Fixed Closing Fee:** This is a fee charged on the basis of the price of the product sold.
3. **EasyShip Weight Handling Fee:** These are the charges the seller will need to pay if Amazon ships the product to the consumer, rather than the seller itself.

It is suggested that rural entrepreneurs study in detail the websites of these e-commerce platforms to understand how to utilise these platforms as an effective channel of distribution.

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Box 2: Using E-commerce as a channel of distribution

\(^\text{18}\) Amazon also provide the option of self-shipping
\(^\text{19}\) For Flipkart please see https://seller.flipkart.com/slp/faqs
\(^\text{20}\) For Amazon please see: https://services.amazon.in/services/sell-on-amazon/benefits.html?ref=as_in_soa_hnav
\(^\text{20}\) These are requirements as listed on Flipkart’s website; the requirements of Amazon are lesser. Please go through the links mentioned above in detail before registering with these websites.
Along with e-commerce, aggregation model is another model that is expected to take prominence in for agro-based rural entrepreneurs. Under this model, the rural entrepreneur can aggregate supplies from the farmers, value add to the produce and then sell the value product in the market. One such model is presented in the box below.

Rural entrepreneurs have the capability of helping farmers derive better value from their produce. They can aggregate supplies from farmers and then through a RE based enterprise (solar dryer/ cold storage etc.) add value to the product. The rural entrepreneur can help the farmer access a larger market and help create better forward linkages for the produce.

For instance, the rural entrepreneur can invest in a solar dryer to add value to the produce aggregated from the farmers. Onions can be procured, dried and be sold to restaurants, hotels and catering industry as a value added product. The rural entrepreneur takes care of training, farmer selection (for aggregation), collection, quality check and transfer of produce to the facility. The farmer gets assured price for their produce and the rural entrepreneur gets a guaranteed supply of raw material.

Box 3: Role of rural entrepreneur as an aggregator of agro-products

3.6.4 Promotion

Promotion focuses on communicating with the consumer to help them take their purchase decision. There are four types of promotion strategies discussed below. The rural entrepreneurs will need to have a mix of these strategies depending upon the product, budget for promotion, competition, geographic market, market readiness to accept the product and Segmentation, Targeting and Positioning (STP) of the product etc.

- **Advertising** - This is paid non-personal means for promotion. There are several media that can be used for advertising including newspaper, radio, TV, and direct mail. With social media gaining ground, media such as WhatsApp, Facebook or similar platforms can be considered. Each of these media will need to be individually budgeted for, with targets set for achieving sales goals, communicating the product image and expanding and influencing the consumer base.

- **Sales Promotion** - These are incentives offered to the channels of distribution or the consumer, promoting them to push the product. These include free samples, bulk discounts, giveaways, demonstrations, cash-backs, free gifts etc. In most cases this is a short term means for pushing sales.

- **Public relations** - This is a means of creating relations and building rapport with the consumers as well as influencing non-consumers. Supporting a social cause, corporate social responsibility (CSR) etc. are some of the activities covered under public relations.

- **Personal Selling**\(^{21}\) - This is a personal selling pitch of the product presented to the consumer. It could be a face to face interaction with the consumer describing the product and influencing the purchase decision.

\(^{21}\) Discussed in detail subsequently
Rural entrepreneurs will be required to prepare their marketing plan based on the STP strategies and planning the implementation through the 4Ps discussed above. Both STP and 4Ps work closely together in building a marketing strategy for rural enterprises. The rural entrepreneurs will be driven by their product, the resources available (physical and financial) and market preparedness of the product while developing and finalising the marketing strategy.

Based on the 4Ps analysis a marketing plan for the rural enterprise can be prepared. A suggested format for the marketing plan is appended.

**Exercise: Develop 4 Ps strategy for selected rural enterprise (Group of 2 participants)**

### 3.7 What are the steps in Personal Selling?

From a rural enterprise perspective, personal selling is one of the most effective means for the sale of products. In most cases, at least at the start, markets are geographically small and can be targeted individually. Also, where the product is similar to others already available in the market; then personal selling could give an edge to the entrepreneurs. Selling is a process in itself and can be broken into seven steps (see figure below). Each of these steps is discussed in detail subsequently.

![Figure 11: Steps for Personal Selling](image-url)
1. **Prospecting:** As the first step, the entrepreneurs identify the potential customers (also known as developing leads). These potential customers / consumers will be from the targeted segment of the market.

2. **Pre-approach:** As the second step, the entrepreneurs prepare a profile of the identified customer. The profile includes details of the customer’s requirement, current use patterns, experience of using the product etc. Along with this the entrepreneurs also need to plan their pitch to the customer and the evidence or display required to enhance any presentation. Potential customers/ consumers could be agencies without any prior reference, in which case the entrepreneurs will need to undertake a cold call.

To pursue a retail chain store to sell the oil extracted from the oil expeller unit, the entrepreneurs will need to make a cold call (where the possible new customers/ consumers are contacted without a prior reference). Before the cold call, the entrepreneurs need to seek an appointment with the marketing/ purchase team at the retail store. The first meeting is a part of the cold call, and it is advised not to negotiate too hard in the first meeting. The focus of the first meeting should be to talk about the product, its unique features, quality, price, minimum off-take condition, bulk discount etc. and seek another meeting to close the discussions. With the customer/ consumer, the person-in-charge may consult with other teams before making the final decision. The entrepreneurs may like to make changes in their offer after the first meeting, depending on the outlet and the prospects of a good volume of sales, if applicable.

**Box 4: How to approach a Cold Call?**

3. **Approach:** This step covers contacting the customer to make them understand the product and deliver value. This may include greeting, statement of objective or series of questions to determine the customer requirements. The aim is to learn about the customer and their buying motive before beginning the presentation.

4. **Presentations:** This step is the entrepreneur’s opportunity to present the product to the customer. The focus should always be on the benefit to the consumer from the product rather than a technical description of the product’s features.

5. **Objections Handling:** The customers will almost always have concerns about the product. The entrepreneurs need to address these. Common objections/ clarifications include questions on price, quality use, other consumers’ experience etc.

6. **Closing:** Under this, the entrepreneurs need to be ready to take the order and ask the customer to place the order. This is the most critical step in selling.

   The above six steps may be completed in one meeting or may require a series of meetings with the customer. Repeated meetings may be required to get clarity on the customer’s expected value for money, price and product utility, competition, level of investment required from the customer etc.

7. **Follow-up:** This is an important step to build a relationship with the customer. As soon as the order is placed, the entrepreneurs need to ensure timely delivery of the product, accurate billing and customer satisfaction.
Although the above-mentioned steps are important in almost all selling situations, salesmen differ from one another in their approach. The following model illustrates this:

<table>
<thead>
<tr>
<th>People Oriented</th>
<th>Problem solving oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am the customer’s friend. It is the personal bond between me and him that leads to a sale</td>
<td>I consult with the customer to identify his needs that my products can satisfy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sales technique oriented</th>
<th>Push-the-product</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have a sales technique and trick that I use to get the sales</td>
<td>I pressurise the customer into buying what I am trying to sell</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Take-it-or-leave-it</th>
<th>Concern for Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>I place the product before the customer. It sells itself as and when it can</td>
<td>Concern for Sale</td>
</tr>
</tbody>
</table>

Different sales situation needs different selling styles.

### 3.8 Developing an advertising strategy

Advertising is a non-personal and mass reach promotion option that helps the rural enterprise communicate its Unique Selling Proposition (USP).

A solar cold storage enterprise has the following USP:

“Ecofrost is the first on-farm solar powered cold storage. Ecofrost is a portable, solar powered cold room solution that can keep perishables fresh for an extended period of time, preventing losses and empowering its users get the deserved value for their crops.”

![Figure 12: Different sale approaches that can be adopted by the entrepreneur](image-url)

The cold storage solution provider emphasises on the innovation (first on-farm solar powered cold storage) and utility of the product (keep perishables fresh for an extended period of time, preventing losses and empowering its users get the deserved value for their crops) communicating their value in one effective statement.

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22 [https://www.ecozensolutions.com/](https://www.ecozensolutions.com/) access on 19th February 2019
USP is a unique message about the enterprise or products or services sold by the entrepreneur that it wants to communicate with the prospective consumers. Once USP has been identified, it needs to be translated into a slogan of three to ten words, which can be the theme of the advertising campaign. The slogan needs to be used regularly, across various mediums such that customers start to associate it with the enterprise or product or service. The advertising needs to closely follow the segmentation, targeting and positioning strategy discussed earlier.

3.8.1 Advertising Medium

There are a number of advertising media that can be deployed by rural enterprises. The medium to be used for advertising is dependent upon the product, the targeted market, financial resources and the geography to be covered. If the product has a large geographical market, and the financial resources are not a constraint, then a rural enterprise can select any of the following options: audio (radio) or video (television, internet advertisements etc.)\(^2\). In case of a budget constraint, and with local market to be targeted, then the local radio and television stations can be considered along with inserts in local newspapers, or displays using hoardings, banners, dealer’s signage, leaflets etc. In order to address the literacy barrier, depending upon the nature of the products or services being offered, rallies and awareness generation campaigns at schools and Anganwadis, could also be an effective medium. For example, for a solar RO water enterprise, a campaign based on benefits of RO water at schools and Anganwadis may be effective in creating awareness about the need for clean drinking water and how RO water can be a possible solution. The rural audience can be catered to via unconventional methods of advertisement display and distribution. Places such as mandis, fairs and local clubs are hubs for advertising. Using loudspeakers coupled with an attractive product tagline can work well to gain an audience’s attention in these regions.

Some approaches to rural-centric advertising campaigns are discussed below.

Coca Cola

The “Thanda Matlab Coca Cola” campaign was launched with a focus on rural segment. They cashed in upon the brand endorsement of film actor Aamir Khan and made it relevant regionally. They also introduced smaller packaging of Coke to meet the price points of rural India.

\(^2\) If literacy of the population is known, then depending on the geographical coverage local or national newspaper can also be used.
3.8.2 Using Colour

The colours used in advertisements also convey messages and are expected to stimulate emotions. Colourful advertisements convey messages better than black and white ones. They are not only expected to increase the readership, but also can substantially increase the sales response. However, it is suggested that one should not overdo colours, and one or two colours may be used. Here are a few of the popular colours and their common associations:

**Red**

Suggests excitement, strength and is a good colour to use in a sales advertisement. Products such as soaps or health foods such as Chavanpransh and others use red.

**Yellow**

Conveys brightness, airiness, refreshment. Warning: yellow gets lost on white paper, so always surround areas of yellow with a border of black or another dark tone.
Is a cold colour to convey formality and haughtiness in its darker shades and fragility, daintiness and youthfulness in the lighter shades. It is mostly used by utility companies, banks etc.

Another cool colour, suggests cheapness and coldness in its darker tones while conveying freshness and crispness in its lighter shades.

A colour of warmth, action, power.

A colour of royalty and stateliness.

Suggests luxury, solidity, quietness.

Implies age, wholesomeness, utility.

Conveys mystery, strength, heaviness.
Pictorial advertisements which connect to the audience can also have a huge impact on the consumers. Wall paintings and posters on fairs, village mandis and clubs have a greater visual impact.

While developing advertisements, the following are some dos and don’ts:

- To build a rural enterprise’s brand, develop a logo with the name of the enterprise to ensure that the name of the enterprise is not just set in the same type as the rest of the advertisement

- The headline of the advertisement needs to promise a benefit to the reader. For instance, Ghari detergent says ‘pehle istemal kare, phir vishwas kare’, encouraging the consumer to use the product first.

- Keep the message clear, crisp and concise with a focus on benefits

- Do not attempt to misinform or mislead the reader as it may lead to sale, but may lead to ultimately lost customers. Honesty is still the best policy.

Based on the above guidelines a marketing plan for the rural enterprise can be developed. This can help the product reach the market and monetise the investment done.
04
Suggested Format
for a Marketing Plan
Based on the strategies chosen, the Marketing Mix (4 P’s of Marketing) would be formulated and the marketing plan written. It should cover the following:

- Target Markets
- Competition
- Environment
- Product/Service
- Price
- Place
- Promotion
- Targeted sales in the coming year and projections for the next two years

A suggested outline is provided here for the market plan.

1. Market Analysis

1.1. Target Market

Who are the customers? Write a brief description of the target customers. (Details such as age, sex, education, occupations, occasions of use, frequency of use, income levels, geographic location etc.)

1.2. Consumers will be targeted by:

i) Products & Target Customers

<table>
<thead>
<tr>
<th>S. No</th>
<th>Product Line</th>
<th>Target Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ii) Geographic area? Which areas? __________

1.3. Expected sales in the coming year

<table>
<thead>
<tr>
<th>S. No</th>
<th>Months</th>
<th>Product Line 1</th>
<th>Product Line 2</th>
<th>Product Line 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>April</td>
<td></td>
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<tr>
<td>2</td>
<td>May</td>
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<td>3</td>
<td>June</td>
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<td>July</td>
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<td>August</td>
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<td>6</td>
<td>September</td>
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<td>7</td>
<td>October</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td>November</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>December</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Competition

2.1. Who are the competitors?

Name
Address

Years in business
Market share
Price/Strategy
Product/Service Features

Name
Address

Years in business
Market share
Price/Strategy
Product/Service Features

2.2. How competitive is the market

High
Medium
Low
2.3. List below your strengths and weaknesses compared to your competitor’s (consider such areas as location, size of resources, reputations services, personnel, etc.):

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

3. Environment

3.1. The following are some important economic factors that will affect our product or service (such as, incomes agriculture rising energy prices, etc.):

3.2. The following are some important legal factors that will affect our market:

3.3. The following are some important government factors:

3.4. The following are other external factors that will affect our market, but over which we have no control:

4. Product Or Service Analysis

4.1. Description

4.1.1. Describe here what the product/service is and what it does:

4.2. Comparison

4.2.1. What advantages does our product/service have over those of the competitor’s (consider such things as unique features, patents, expertise, special training, etc.)?

4.2.2. What disadvantages does it have?

4.3. Some Considerations

4.3.1. Where will you get your materials and Supplies?

4.3.2. List other considerations
5. Marketing Strategies – Market Mix

5.1. Image

5.1.1. First, what kind of image do we want to have (such as cheap but good, or exclusive or customer-oriented or highest quality, or convenient, or ...)?

5.2. Features

5.2.1. List the features we will emphasise

5.3. Pricing

5.3.1. We will be using the following pricing strategy:

   i) Markup on cost

   ii) Competitive

   iii) Below competition

   iv) Premium price

   v) Other

5.3.2. Are our prices in line with our image?

   Yes _____ No _____

5.3.3. Do our prices cover costs and leave a margin of profit?

   Yes _____ No _____

5.4. Customer Services

5.4.1. List the customer services we provide:

5.4.2. These are our Sales/Credit terms:

5.4.3. The competition offers the following services:

6. Advertising/Promotion

6.1. These are the things we wish to say about the business

6.2. We will use the following advertising/promotion sources

6.3. The following are the reasons why we consider the media we have chosen to be the most effective:

24 Markup price = Cost price + profit desired
25 Competitive price = follow the competitors in setting your price
26 Premium price = More than competitor's price
05

Module 1C:
Writing a Business Plan
## 5.1 Course Overview

<table>
<thead>
<tr>
<th><strong>Course Overview</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course title</strong></td>
</tr>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td><strong>Duration</strong></td>
</tr>
</tbody>
</table>
| **Course modules** | • Business Planning Process  
• SWOT Analysis  
• Marketing Plan  
• Financial Plan |
| **Target group** | Potential local entrepreneurs, heads of SHGs, FCGs, NGOs, local government units |
| **Minimum entry level** | 10th standard pass, ITI diploma/vocational training (desirable), with language skills to comprehend, read & write at basic levels, upcoming rural entrepreneurs |
| **Employment linkages** | Mini-grid plants as operators, solar IPP plants as O&M service providers, RE productive use enterprises |
| **Teaching/delivery method** | • In class lectures  
• Case Studies  
• Business planning exercise |
| **Assessment approach** | • Business plan presentation |
| **Facilities/tools required** | • Projector  
• White board  
• Flipcharts |
| **Learning Outcomes** | At the end of the module, the participant is expected to:  
• Understand the structure of a business plan  
• Prepare a business plan |
5.2 Introduction

“My business is very small. Do I really need to develop a business plan?” This is the question that is often asked by owners of small businesses. The answer is, “You need a plan, if you do not want to remain a small business forever.”

Every business, small or large needs a business plan, more so, in the case of small entrepreneurs, NGOs and first time businessmen. In these sessions, you can look forward to writing the blueprint for your business based on RE for productive uses. The topics covered are:

- Business Planning Process
- Why Business Plans
- Writing the Business Plan

5.3 The Business Planning Process

RE Productive Uses business planning process starts with Market Potential Assessment27, followed by Prioritisation of Potential Enterprises28, assesses the chosen enterprise using Opportunities and Threat Analysis and then selects the Enterprise for investment. Once the business opportunity is identified, the Marketing Plan is prepared. The final part of the process deals with the Financing Plan29.

Each of these components has been discussed in detail in various modules of the training programme. The Business Plan is the culmination of the initial assessments and analysis done across various areas of the business, based on which the plan is developed.

Figure 13: Business Plan Preparation Process

27 Discussed in detail in Module 1 A
28 Discussed in detail in Module 1 A
29 The detailed discussion on various components of Financial Plan is presented in Module 3 of the training manual
5.3.1 Market Potential Assessment

Market potential assessment is to be conducted by the rural entrepreneurs in the geographic area where they want to operate the proposed enterprise. This is an exercise wherein the entrepreneurs will try and identify the potential enterprise area in which there is a good opportunity for investment. This is a survey based exercise that may include interactions with agencies, such as, government departments, market players, competitors, existing consumers of proposed products and services and the potential users.

A detailed section has been provided in the module along with a model questionnaire that could be customised and used for market potential assessment.

5.3.2 Prioritisation of Potential Enterprise

When the market potential assessment for few of the identified enterprises is conducted one would require prioritising the most suited enterprise(s). The prioritisation can be based on how easy it can be to start the enterprise provided a good and profitable market is ensured for that. Availability of raw material, how good backward and forward market linkages can be established and availability of financial or fiscal support for the identified enterprise(s) are few of the parameters to prioritise the enterprise for investment.

Please refer to the module on market assessment and marketing of the manual to get the details on the aspects of prioritisation.
5.3.3 Opportunities and Threat Analysis

The final step for developing the business plan will be an Opportunities and Threat analysis that will critically evaluate the preferred enterprise option, taking into consideration the external business environment. It is assumed that Solar RO water plant has emerged as one of the prioritised ventures for rural enterprise development. This is to be done for more than one potential enterprise to undertake a comparative analysis. For every enterprise short-listed, opportunities and threats need to be listed in terms of:

- Size of the market;
- Its stability, i.e., the demand for the product or service is long term for purely temporary;
- The extent to which the market is unhappy with the existing service/solution;
- Level of competition - high, medium or low;
- Price and quality sensitivity of the market;
- Degree of profitability;
- Barriers to entry and exit;
- Possibility of introduction of new technology making the chosen enterprise option obsolete;
- Changes in government's policies/ incentives such as subsidy, depreciation, availability of low-cost funds, etc. and such possibilities thereof;
- Changes in income levels of the target markets.

At the end of the exercise the Opportunities and Threats analysis would look like this:

<table>
<thead>
<tr>
<th>Factors</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of the market</td>
<td>Fairly large as most part of the area has water with iron and arsenic contents</td>
<td></td>
</tr>
<tr>
<td>Its stability, i.e., the demand for the product/services are long term or purely temporary?</td>
<td>Water is a scarce resource and the groundwater situation is not likely to improve in the near future. People are getting more aware about health and water-borne diseases. Even if supply water comes most of the people will require RO water as in the case in urban areas</td>
<td>Supply water can be a threat. When the provision of supply water would come people may switch over to household based RO system</td>
</tr>
</tbody>
</table>

Exercise to be done by the rural entrepreneur to decide the most suited rural enterprise option.
<table>
<thead>
<tr>
<th>Level of competition - high, medium, low</th>
<th>Low at present as there is no service provider. In future the situation may change when people will have supply water - that time there will be competition from RO machine sellers who are pretty established players.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price and quality sensitivity of the market</td>
<td>People tend to value pure water as this has a positive impact on health. Price sensitivity is there as water is considered as a free resource.</td>
</tr>
<tr>
<td>Degree of profitability and barriers to entry/exit</td>
<td><strong>High profitability</strong> in the short and medium term till supply water is made available to the households. Barrier to entry is slightly high as this needs power provisions in the present context whereas; barrier to exit is low for the enterprises who own mini-grids.</td>
</tr>
<tr>
<td>Possibility of introduction of new technology making the chosen one obsolete</td>
<td>Not likely in the near future Bought on a regular basis; part of daily consumption for household</td>
</tr>
<tr>
<td>Changes in government policies such as subsidies, depreciation etc.</td>
<td>There is subsidy available for solar equipment but it is for irrigation. The present mini-grid project has already availed subsidy. (a) Local shopkeeper; (b) Expeller unit</td>
</tr>
<tr>
<td>Changes in income levels of the target markets</td>
<td>The <strong>income level has been increasing</strong> as most of the households have one or more than one earning members settled outside.</td>
</tr>
</tbody>
</table>

Similar analysis will be required for each of the shortlisted rural enterprise options. Based on the comparative assessment, the entrepreneurs can finalise the business opportunity (ies).

### 5.3.4 Marketing Plan

Once the business opportunity has been selected, market analysis follows. The data for the analyses may be obtained from secondary sources or through market research during the course of conducting the market potential assessment exercise.

The market analysis should cover the following details:

- The overall market
- Changes in the market
- Market segments, their attractiveness, profitability
- Target market and customers
- Description of customers
- Competitors – direct and indirect
- Opportunities and Threat (O/T) analysis

---

31 This section will draw from the marketing techniques section included the market assessment and marketing module (Module 1B). A suggested structure of the Marketing Plan is presented in Section 4.
Following the market analysis, an analysis of the Strength and weaknesses (S/W Analysis) of the products and services should be carried out. The exercise needs to focus on the following:

- The uniqueness of the products or services with respect to competitors’
- Reliability and performance of the products and services
- Reach of the chosen delivery channel
- Customer friendliness
- Quality and promptness of after sales service
- Payment terms
- Quality of manpower and their experience
- Pricing
- Standing of the firm in the market

The S/W analysis together with the O/T analysis is called the SWOT analysis. The O/T analysis helps the business to assess the external business environment, while the S/W analysis focuses on the internal business environment, i.e., enterprises product, organisation, its competencies and its policies.

At the end of this exercise the S/W analysis will look like this:

<table>
<thead>
<tr>
<th>Factors</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>The uniqueness of product/service with respect to competitors</td>
<td>The customer has not experienced any service of RO water supply to date. So anything which is better than groundwater is fine.</td>
<td></td>
</tr>
<tr>
<td>Reliability and performance of the product and service</td>
<td>On other projects, customers have a good experience. RO is an established technology and the equipment has been procured from a good supplier with a proper mechanism of after-sales service so the service level will be good.</td>
<td></td>
</tr>
<tr>
<td>Reach of the chosen delivery channel</td>
<td>It is good and there is a provision of delivery at home as well of the water container</td>
<td></td>
</tr>
<tr>
<td>Customer friendliness</td>
<td>Ready stock, no waiting time and customers are local and close to us</td>
<td></td>
</tr>
<tr>
<td>Quality and promptness of after sales service</td>
<td>Lesser requirement of after-sales service as it’s a bottled water business. The enterprise has got assured after sales service agreement with the equipment supplier</td>
<td></td>
</tr>
<tr>
<td>Payment terms</td>
<td>Easy credit terms to suitability to pay. They have other transactions with us that gives the comfort of payment</td>
<td></td>
</tr>
<tr>
<td>Quality of manpower and their experience</td>
<td>Technically qualified</td>
<td>Not much experienced in marketing Low retention level</td>
</tr>
<tr>
<td>Pricing</td>
<td></td>
<td>Not affordable by a good number of households</td>
</tr>
<tr>
<td>Standing of the firm in the market</td>
<td>Well known amongst the local consumers</td>
<td></td>
</tr>
</tbody>
</table>
5.3.4.1 Developing a marketing strategy

Having undertaken the SWOT analysis and being aware of various aspects of the enterprise the agency will be in a better position to formulate a market strategy. The strategy will be based on the product or services’ features, target market, skimming strategy, whether through rapid penetration or through, slow penetration etc.

In the subsequent sections, some of the strategies are presented for the objective of reference. This is just one model of strategy as there can be more than one option for strategy formulation and that largely depends upon the market situation, investment capability and the level of competition.

5.3.4.2 Finalising the target consumer

Market potential assessment study will provide information about the segments of consumers. Based on this most suited consumer segment(s) can be selected. It is advised to refer to the segmentation section of the manual to undertake the segmentation exercise and select the most suitable target market and consumer group(s).

5.3.4.3 Identifying the Positioning Strategy for the Product

After the target consumer has been identified, the rural enterprise will need to decide the positioning strategy for the product. This strategy will include identifying the messaging and signalling strategy for the product for the targeted consumer. The positioning will also include communicating with the consumer the advantages of the product vis-à-vis the competition. For instance, in the case of RO water supply, the enterprise will need to communicate to the consumer the benefits of clean drinking water and the health issues that arise from drinking dirty water. Following is the suggested positioning strategy for RO Water Supply:

1. Specific Product Features: The RO water supply is 24*7 available

2. Benefits, problem-solutions or needs: RO water is a source of clean drinking water and saves the family from waterborne and other disease

3. Specific Usage Occasions: RO water has minerals added and hence improves health

4. User Category: Ideal for everyone, especially households

5. Against another Product: The water is cleaner and more hygienic as compared to water from the well

5.3.4.4 Developing pricing strategy

The pricing strategy for the product is closely tied to the promotional activities. Low price with high promotion can lead to a rapid penetration in the market. Low price here is with reference to the competition pricing. The table below presents how market access strategies differ with a mix of pricing and promotion.
Along with promotion, another consideration for pricing strategy is quality. For rural enterprises, for most of the outputs (oil, woven cloth, RO water etc.) the product is similar and hence consistent quality can be a major differentiation for the rural enterprise to tap on consumers. Therefore, this aspect needs to be carefully incorporated in the pricing and promotion strategy.

A suggested structure for the marketing plan is presented in the next section for the reference of the rural entrepreneurs.

5.3.5 Financial Plan

The second key document that needs to be prepared for the planning exercise is the Financial Plan. The contours of a financial plan are discussed below.

1. Financing Pattern: This will include details of the sources of finance (debt, equity, grants etc.) that can be tapped for financing the rural enterprise. The plan will include the list of the sources that the entrepreneurs plan to tap into and also present the Debt: Equity ratio for the project.

2. Cash Flow Statement (Budget): This is a detailed financial statement which records cash inflow and outflow over a period of time. The statement helps estimate the profitability of the rural enterprise. A format for the cash flow statement is provided in Section 2.

3. Three-year Income Projection: As presented in Section 2 of the Module, three-year income projection statement is to be prepared. The income statement helps to understand the future profitability performance of the rural enterprise. The income statement projects all revenue and costs components of the rural enterprise.

4. Breakeven Analysis: This is one of the most basic analyses to determine the profitability of the project. Breakeven is the point at which revenue from the rural enterprise is equal to the costs, implying it is a no loss or profit situation. Post the Breakeven point it is expected that the business will be profitable.

### Table 8: Market strategies with a mix of pricing and promotion

<table>
<thead>
<tr>
<th>Price</th>
<th>Promotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Rapid</td>
</tr>
<tr>
<td></td>
<td>Slow</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Rapid</td>
</tr>
<tr>
<td></td>
<td>Slow</td>
</tr>
<tr>
<td></td>
<td>Penetrate</td>
</tr>
<tr>
<td></td>
<td>Penetrate</td>
</tr>
</tbody>
</table>

The financial plan for the rural enterprise will draw from the concepts discussed in Section 2 of this module. The Cash flow statement focuses only on the cash inflows and outflows.
5. Debt Service Coverage: The Debt Service Coverage Ratio (DSCR) is a key financial ratio and is keenly looked by the bankers while financing a project. It measures the firm’s ability to meet long-term obligations from its earnings. This ratio is expressed as the amount a project pays (or proposes to pay) each year for principal and interest on the debt/loan; that is, the amount of debt service to be paid when compared with the funds available to pay that debt service.

5.3.6 Suggested outline of the Business Plan

The above sections discuss each of the components of the Business Plan. Once rural entrepreneurs have developed all these sections, they can put together the business plan. The following is a suggested structure for a Business Plan for a rural enterprise.

1. Cover sheet (1 to 2 pages): Serves as the title page of your business plan. It should contain the following:

   1.1. Name of the company
   1.2. Company address
   1.3. Company phone number (include area code)
   1.4. Logo (if you have one)
   1.5. Names, titles, addresses and phone numbers (include area code) of owners
   1.6. Month and year your plan was issued
   1.7. Name of preparer

2. Brief description of the business (2 to 3 pages): Give a brief description of the business idea. What you propose to do? Why do you think you would be successful?

3. Table of contents (1 page): A page listing the major topics and references.

4. Marketing Plan (10 to 12 pages): Covers the details of your marketing plan. Include information about the total market with emphasis on your target market. Identify your customers and tell about the means to make your product or service available to them.

   4.1. Target market
   4.2. Competition
   4.3. Place
   4.4. Promotion
   4.5. Pricing
   4.6. Product
   4.7. Timing of market entry
   4.8. Targeted sales
   4.9. Industry trends

*Suggested structure of the Marketing Plan is presented in the previous section.*
5. Financial documents (10 to 12 pages): These are the records used to show past, current and projected finances. The following are the major documents you will want to include in your business plan. The work is easier if these are done in the order presented.

   5.1. Cash flow statement (budget)
   5.2. Three-year income projection
   5.3. Break-even analysis
   5.4. Debt-service Ratio

6. Supporting Documents:

   6.1. Personal Resumes
   6.2. Copies of Leases
   6.3. Letters of Reference
   6.4. Contracts
   6.5. Legal Documents
   6.6. Miscellaneous Documents
Appendix 1:
Categorisation of RE productive uses
<table>
<thead>
<tr>
<th>Productive Activity</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold Storage</td>
<td>Refrigeration to preserve agricultural produce</td>
</tr>
<tr>
<td>Milking machine</td>
<td>Machine that helps in milking cows, easing manual labour</td>
</tr>
<tr>
<td>Pump</td>
<td>Motor pumps to pump water for irrigation. Pumped water may be used for domestic needs but the primary use is irrigation</td>
</tr>
<tr>
<td>Charka (spinning wheel)</td>
<td>Motorised spinning wheel for threading spindles</td>
</tr>
<tr>
<td>Knapsack sprayer</td>
<td>Power-driven sprayers for pesticides</td>
</tr>
<tr>
<td>Cassava grater</td>
<td>Motorised grating of tubular vegetables like cassava, potatoes etc.</td>
</tr>
<tr>
<td>Roti rolling machine</td>
<td>Machine that helps in flattening rotis</td>
</tr>
<tr>
<td>Rice huller</td>
<td>Machine that helps to separate the grains from its shells</td>
</tr>
<tr>
<td>Butter churner</td>
<td>Machine to churn butter, easing manual activity</td>
</tr>
<tr>
<td>Milling machine</td>
<td>Machine to grind grains, millets to flour; cutting and shaping for metal and wood products</td>
</tr>
<tr>
<td>Sewing machine</td>
<td>Motorised sewing machine for stitching, ease manual labour</td>
</tr>
<tr>
<td>Forge blower</td>
<td>Forge blowers with an electric motor offer the blacksmith a constant, consistent stream of air to stroke the fire.</td>
</tr>
<tr>
<td>Photocopy machine</td>
<td>Electrically powered, photocopy machine provides scan and copies of printed material</td>
</tr>
<tr>
<td>Cane crusher</td>
<td>Motorised machine to crush cane for extracting its juice</td>
</tr>
<tr>
<td>Puncture remover</td>
<td>In assembly line process to remove tyre punctures in automobiles, electricity powers the working of the air compressor</td>
</tr>
<tr>
<td>Dryer</td>
<td>Machines using hot air for drying</td>
</tr>
<tr>
<td>Maize Sheller</td>
<td>Mechanised systems that help to de-shell maize, otherwise done manually</td>
</tr>
<tr>
<td>Weeder</td>
<td>Mechanised tool to remove weeds</td>
</tr>
<tr>
<td>Seed Sower</td>
<td>Mechanised agro tool to sow seeds in the field</td>
</tr>
<tr>
<td>Poultry</td>
<td>Enclosure to breed poultry</td>
</tr>
<tr>
<td>RO water</td>
<td>Water filtration process through Reverse Osmosis (RO)</td>
</tr>
<tr>
<td>Oil Expeller Unit</td>
<td>Expeller unit to obtain oil from various oil seeds</td>
</tr>
<tr>
<td>Carpentry</td>
<td>Wood related services provided to households and other establishments</td>
</tr>
</tbody>
</table>

Source: Adapted from https://www.ceew.in/sites/default/files/CEEW_Clean_energy_innovations_to_boost_rural_incomes_15Oct18.pdf
Appendix 2:

Questionnaire for determining potential demand for solar cold storage (Illustrative)
Objective of the Survey: To estimate demand for solar cold storage

7.1 Profile of the Interviewee/ Farmer

1. Name of Interviewee/ Farmer:
2. Address:
3. Name and Address of the registered body:
4. District:
5. Year of Formation:
6. Key Areas of Operations of the registered body:
7. Number of Members:
8. Number of Women Members:
9. Form of Registration (please tick one): Company/ Society/ Trust/ NGO/ Unregistered/ Other (Please mention) ............... 

7.2 Production Pattern

1. What are the various crops produced in a year?

<table>
<thead>
<tr>
<th>S No.</th>
<th>Produce category</th>
<th>Types of produce</th>
<th>Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fruits - 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Fruits - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Flowers -1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Flowers -2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Vegetables - 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Vegetables - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Vegetables - 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Vegetables - 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. What has been the production pattern of the FPO in the last three years?

<table>
<thead>
<tr>
<th>S No.</th>
<th>Produce category</th>
<th>Types of produce</th>
<th>Quantity of production (in Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>2016</td>
</tr>
<tr>
<td>1.</td>
<td>Fruits - 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Fruits - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Flowers - 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Flowers - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Vegetables - 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Vegetables - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Vegetables - 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Vegetables - 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Dairy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Animal Husbandry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. What has been your excess production in the last three years?

<table>
<thead>
<tr>
<th>S No.</th>
<th>Produce category</th>
<th>Types of produce</th>
<th>Quantity of production (in Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>2016</td>
</tr>
<tr>
<td>1.</td>
<td>Fruits - 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Fruits - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Flowers - 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Flowers - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Vegetables - 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Vegetables - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Vegetables - 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Vegetables - 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Dairy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Animal Husbandry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. How do you manage excess production?
   a. Store the excess production (…… number of days) (Product…………..)
   b. The production goes waste
   c. Sell at a lower price
   d. Distress sale of excess production
   e. Others (please specify?)

7.3 Cold Storage Usage

1. Have you used cold storage? Yes / No (please tick one)

2. What is the reason for using Cold Storage?
   a. Extending the shelf life of the product
   b. Reduction of waste
   c. Getting better price of the produce
   d. Access to a larger/ farther market

3. What are the type and quantity kept in cold storage?

<table>
<thead>
<tr>
<th>S No.</th>
<th>Produce category</th>
<th>Types of produce</th>
<th>Quantity of production (in Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>2016</td>
</tr>
<tr>
<td>1.</td>
<td>Fruits - 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Fruits - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Flowers -1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Flowers -2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Vegetables - 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Vegetables - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Vegetables - 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Vegetables - 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Dairy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Animal Husbandry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Average of the number of days for storing produce in cold storage? ......... Days

5. Maximum price received without cold storage? .......INR/ kg

6. Maximum price received with cold storage? .......INR/ kg

7. Please provide following details for the price received for products sold

<table>
<thead>
<tr>
<th>Produce Type</th>
<th>Crop Name</th>
<th>Day of Harvest</th>
<th>3 days post-harvest</th>
<th>10 days post-harvest</th>
<th>30 days post-harvest</th>
<th>45 days post-harvest</th>
<th>60 days post-harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruits - 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruits - 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flowers -1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flowers -2</td>
<td></td>
<td></td>
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<td>Others</td>
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</tbody>
</table>

8. What are the new markets that you have been able to tap with the cold storage?

9. Has your income increased with the cold storage?

10. How much has been the income increased?

7.4 About the Cold Storage

1. Which company make is the solar cold storage?

2. What is the tonnage?

3. What was the cost of the cold storage (cost of equipment+ installation cost) in INR?

4. How do you pay for the cold storage services?
   a. Lumpsum
   b. Monthly rental
c. No payment (joint ownership)

5. Did you receive any subsidy for buying this unit? Yes/No (please tick one)

6. If yes, what was the subsidy amount/ Percentage?(in INR/percentage of total cost)

7. Who gave the subsidy? ............

8. What is the source of electricity for the cold storage?
   a. Grid electricity
   b. Solar
   c. Battery

7.5 Demand of Cold Storage

1. Going forward, how is your produce expected to increase?

<table>
<thead>
<tr>
<th>S No.</th>
<th>Produce category</th>
<th>Types of produce</th>
<th>Quantity of production (in Kg)</th>
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<td>12.</td>
<td>Others</td>
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</tbody>
</table>

2. What is the expected tonnage that you would like to install?

3. What are the barriers that can limit your access to cold storage?
   a. High capital cost
   b. Technology
   c. Grid access
4. Are there any specific requirements you have from the cold storage?

5. How much will you be willing to pay for the cold storage service:
   a. 10 to 25 paise per kg per day
   b. 26 to 50 paise per kg per day
   c. 50 paise to INR 1 per kg per day
Clean Energy Access Network

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