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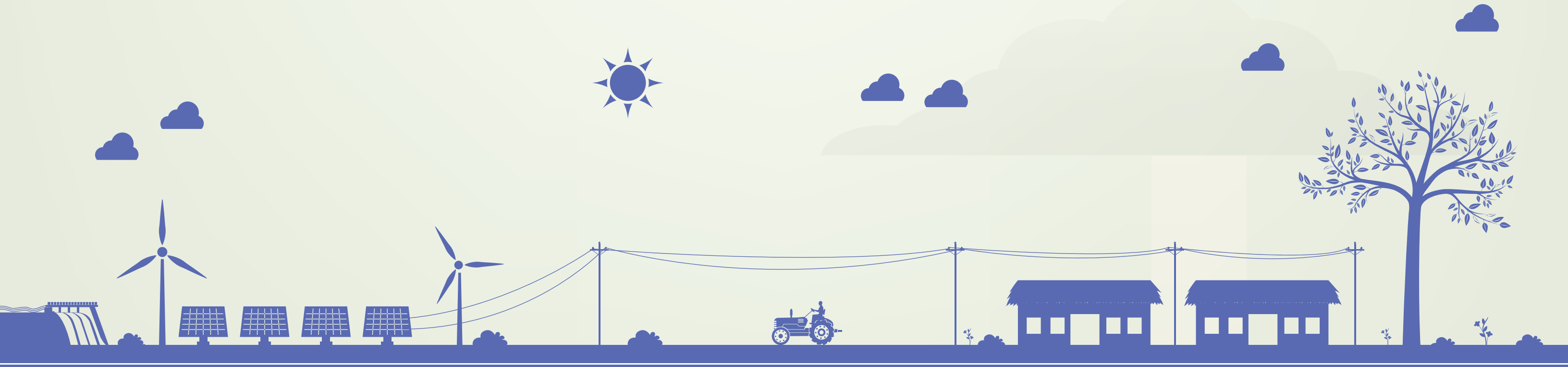
CLEAN
Clean Energy Access Network

TRAINING MODULE:
ENABLING SERVICE ENTERPRISES WITH DRE FOR PRODUCTIVE USES

Module 3 – Planning
(Financial and Institutional Arrangements)



Supporting the Institutional Development of CLEAN

(Access to Energy in Rural Areas – IGEN – ACCESS)

Disclaimer

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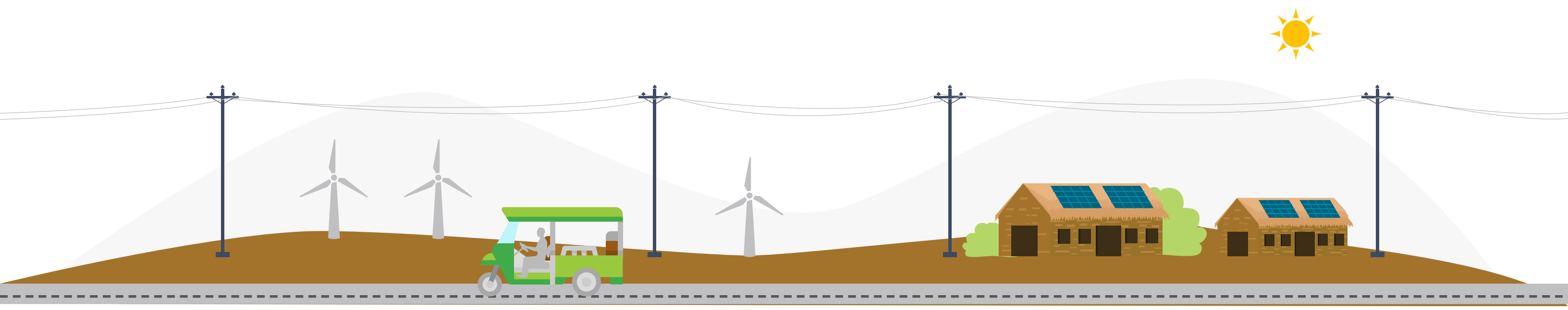

List of Abbreviations

AC	Alternating Current
AIFs	Alternative Investment Funds
APCO	Andhra Pradesh State Handloom Weavers Cooperative Society
BE	Break Even
CSR	Corporate Social Responsibility
DFIs	Development Financial Institutions
DIN	Director Identification number
DRE	Distributed Renewable Energy
DSC	Digital Signature
DSCR	Debt Service Coverage Ratio
FAQs	Frequently Asked Questions
FCRA	Foreign Contribution Regulation Act
FFS	Fund of funds
FPOs	Farmer Producer Organisations
FWWB	Friends of Women's World Banking, India
GDP	Gross Domestic Product
GNP	Gross National Product
IDBI	Industrial Development Bank of India
IIFC	India Infrastructure Finance Company
IPO	Initial Public Offering
IRR	Internal Rate of Return
IREDA	Indian Renewable Energy Development Agency Limited

MCLR	Marginal Cost of Lending Rate
MIDH	Mission for Integrated Development of Horticulture
MSMEs	Micro, Small and Medium Enterprises
NABARD	National Bank for Agriculture and Rural Development
NBFCs	Non-Banking Financial Corporation
NPV	Net Present Value
O/T	Opportunities and Threat
PFS	PTC India Financial Services
PMMY	Pradhan Mantri Mudra Yojana
SC	Scheduled Cast
ST	Scheduled Tribe
PV	Present value
RBI	Reserve Bank of India
RE	Renewable Energy
RRBs	Regional Rural Banks
SHGs	Self Help Groups
SIDBI	Small Industries Development Bank of India
S/W	Strength and weaknesses
SWOT	Strength weakness opportunity and threat
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VVV	Vikas Volunteer Vahini

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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.[1] 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.

[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 it.

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' in the manual) need to be aware of while developing RE based productive use rural enterprise.

1.3 | Structure of the Training Manual

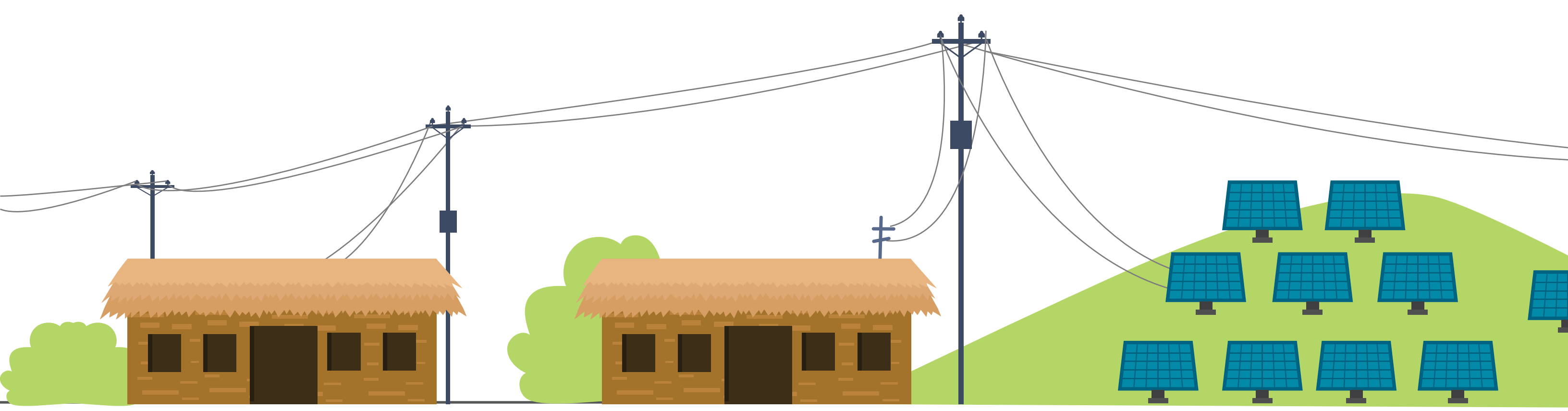
There are technical and non-technical aspects that the rural entrepreneur needs to be trained on for developing rural enterprises. These include technical aspects related to electricity and connectivity to the mini-grids and business related aspects such as developing a business plan and marketing plan, 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.

1. **Module 1 – Market assessment and marketing:** The first module of the training manual focuses on the market related aspects of developing a rural enterprise and preparation of a business plan. 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 the 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. Finally, the module provides the guidelines for writing a business plan for the rural enterprise.

2. **Module 2 - 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.

3. **Module 3 - Planning:** The third and final module focuses on planning aspects of developing the RE based rural enterprise. This module covers areas of financial planning. The financial aspects cover basics of finance, sources of funds and project planning. This module also touches up the various institutional structures that the rural enterprise can adopt for setting up the enterprise.

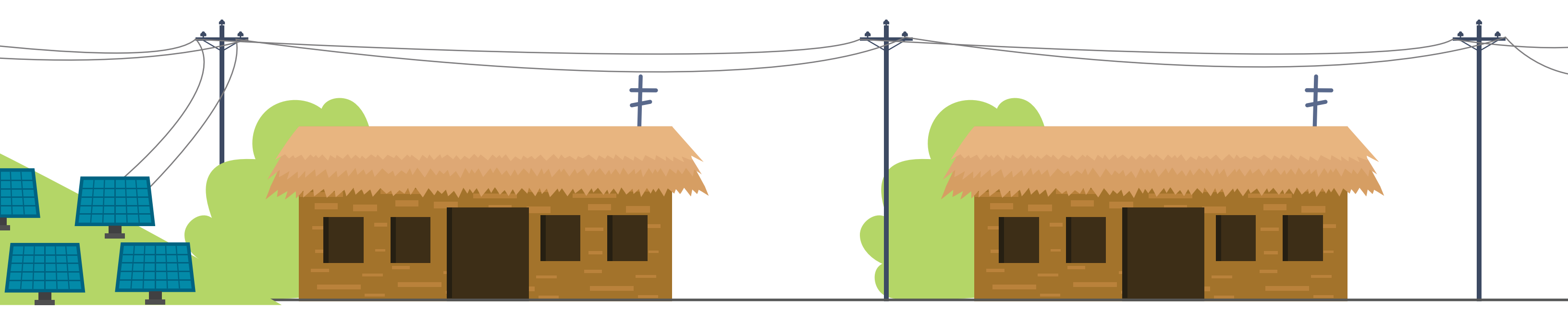
This module focuses on Module 3. It presents planning aspects for developing a rural enterprise. The Module covers the basics of finance and financial analysis that help in establishing a financially viable rural enterprise. The module also touches upon the institutional structure that the rural enterprise can consider while legally structuring the enterprise. It also discusses components of bankable business proposal.



1.4 | Module Agenda

Following is the complete agenda for covering the scope of training covered in this module.

Training Day 1	
0900 to 1000 hours	**Inaugural Session** • Opening Remarks • Context Setting and expectations from Training Programme • Overview of the Training Programme • *Discussion on the Structure of the Training Programme – Open discussion*
1000 to 1015 hours	**Tea**
1015 to 1145 hours	**Session 1 (a): Module 3A: Understanding Financial Management** Coverage • Basics of Finance relevant for rural enterprise development • Sources of Finance to be tapped by the rural entrepreneur
1145 to 1200 hours	**Tea**
1200 to 1330 hours	**Session 1 (b): Module 3A: Understanding Financial Management** Coverage • Breakeven Analysis of the rural enterprise to understand profitability • Estimation of NPV and IRR and financial viability of the project
1330 to 1430 hours	**Lunch**
1430 to 1530 hours	**Session 1 (c): Module 3A: Understanding Financial Management** • Interactive Session with Basic financial exercise (Excel or Calculator required)
1530 to 1545 hours	**Tea**
1545 to 1715 hours	**Session 2: Module 3B: Institutional Structure** Coverage • Types of legal structures that can be adopted by rural enterprise • Relevance of each of the structure for rural enterprise • Advantages and disadvantages of different structures
1715 to 1730 hours	**Session 3: Summary of the Day and Quiz**



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MODULE 3A

Financial Planning for Renewable Energy productive uses in rural areas

2.1 | Course Overview

Course title	Financial Planning for Renewable Energy (RE) productive uses in rural areas
Objective	To sensitise the rural entrepreneur to various concepts of finance and financial analysis so that it can build a financially viable enterprise. Help the rural entrepreneur to develop a business plan (including a bankable proposal) for the rural enterprise.
Duration	4 hours
Module inclusions	• Basics of Finance relevant for rural enterprise development • Sources of Finance to be tapped by the rural entrepreneur • Breakeven Analysis of the rural enterprise to understand profitability • Estimation of NPV and IRR and financial viability of the project • Basic financial exercise (Excel or Calculator required)
Target group	• Head of Organisations (Self Help Groups (SHGs), Non-Governmental Organisations (NGOs), Private Companies) • 'On the job' management trainees or accountants • Mini-grid Operators/ Promoters • Rural enterprise entrepreneurs
Minimum entry level	• 12th standard pass with mathematics as a core subject, any degree above full time or part time graduation, with language skills to comprehend, read & write at basic levels • Basic understanding of financial concepts
Teaching/ Delivery method	Group training in the classroom through presentation and case study analysis
Facilities/ Tools Required	Excel modules and power point presentation
Learning Outcomes	1. Financial planning of the project; 2. Assessment of project viability and designing bankable DPRs to get loans/grants

2.2 | Introduction

Financial planning for a rural enterprise is imperative to ensure business sustainability and long term viability of the enterprise. All enterprises require funds for their lifetime, not just at the investment stage but also during operation and maintenance (O&M) stage. Requirement of funds is specific to a particular type of enterprise and is dependent on multiple parameters such as (but not limited to): raw material costs, equipment costs, transportation costs, financing costs, manpower requirements, and other expenses. For understanding the financing options for a rural enterprise, the following questions need to be understood:

- How to determine the fund requirement for the rural enterprise?
- What are the sources of revenue that can be considered?
- What are the sources of funds that can be tapped?
- How to prepare a proposal for accessing funds?

While financing of the project is being considered, it is important that the financing agencies understand the risks of the rural enterprise. The financing community needs to understand the risks so that these are suitably reflected in the project financing costs. Appendix 5 summarises typical risks faced by a rural enterprise along possible mitigation strategies for the reference of the rural entrepreneur and financing community.

2.3 | How to determine the fund requirement for the rural enterprise?

It is important for the rural entrepreneur to estimate the budget for the identified rural enterprise at the project planning stage itself. The fund requirement or budget estimate needs to consider investment or capital costs and the recurrent O&M costs for the business. These costs are broadly defined in the table below.

Table 1: Defining Capital and Operating and Maintenance Costs

Particular	Capital Costs	Operating and Maintenance (O&M) Costs
Definition	These are typically the one-time costs that need to be incurred for setting up the rural enterprise	These costs are incurred on a regular basis in order to run the enterprise
Example	Plant and machinery costs, land costs, building costs etc.	Material cost, labour cost, administrative cost, interest charges, etc.

Some key elements are illustrated below using an oil expeller unit as an example. However, these may change specific to the type of enterprise, geography, and other parameters. The table below can be duly filled to estimate the costs associated with a DRE mini-grid powered oil expelling rural enterprise.

Table 2: Format for determining total funds required for a rural enterprise

S. No.	Particulars	Cost element	Estimated amount	Unit
1	**Project related Costs (Capital Costs)**	Capital cost of the site and required infrastructure (Land)		
2	**Project related Costs (Capital Costs)**	Machinery cost and associated auxiliaries (oil expeller machine/ storage tank/ weighing scale/ miscellaneous tools)		
3		Preliminary expenses		
4		Office Furniture and Fixture		
5		Insurance cost related to machine and related systems		
6		Margin on working capital		
7	**Capital Investment Required (1+2+3+4)**			
8	**Annual Costs**	Raw Material cost		
9		Transportation of raw material		
10		Storage of raw material		
11		Manpower and labour cost for raw material		
12		Insurance cost related to material or taxes/ duties/ other costs related to transportation of material to the site		
13		Cost of required inputs for operation of the machine (example - per unit cost of electricity procured through RE plant); if water is procured for cleaning or other requirements, they need to be included as well.		
14		Manpower and labour cost for operation and maintenance of machines		
15		Cost of material required for packaging the output		
16		Cost of manpower and labour for packaging/ labelling of products		
17		Cost of marketing mechanisms like advertising or events, etc.		
18		Administrative and general expenses for office stationery, furniture, etc.		
19		Employees cost for business operations for both internal and external support		
20		Depreciation, taxes/duties/ bank related costs		
21	**Annual O&M Costs (sum 6 to 18)**			

The annual costs will need to be projected over the life of the enterprise, and summed up to determine the total O&M costs to be incurred over the entire enterprise life. The sum of the capital cost and the total O&M costs will be equal to the aggregate funds required over the business. Adequate measures need to be taken to optimise on costs to have a viable business prospect.

2.3.1 Working Capital

O&M costs are part of working capital for a rural enterprise. Working capital is the component of capital required to meet the day to day expenses of a rural enterprise. It is computed by subtracting current liabilities[2] from current assets[3] and serves as a measure of liquidity as well. The table below presents an illustrative list of components of current assets and current liabilities.

Table 3: Components of current assets and current liabilities

Current Assets	Current Liabilities
Cash in hand	Bills Payable[4]
Cash in bank	Sundry Creditors[5]
Bills receivable[7]	Outstanding Expenses
Sundry debtors[8]	Dividend
Inventories	Short Term Loan and Advances
Prepaid expenses	Bank Overdraft
Accrued income[9]	Provision of Taxes

Working capital is utilised in purchasing raw materials, paying wages and salaries, managing day-to-day expenses and to provide credit to the customers. Factors such as the nature of business, production cycle, seasonality of demand, availability of raw material and payment cycle determine the requirement of the working capital. The methodologies for estimating working capital requirement are presented in the box below.

Box 1: Methods for estimating working capital requirements

There are a number of methods that can be used for estimating the quantum of working capital required by a rural enterprise. Following are some of the most often used methods:

1. **Working capital as a percentage of sales:** Under this method, a prerequisite is that there is a steady relationship between the sales and working capital requirement of the enterprise. The working capital is calculated as a percentage of the sales of the enterprise. It is a simple method for calculating the working capital requirement, however, the historical relationship between sales and working capital needs to be analysed to ensure that there is no excess or shortage of working capital.

2. **Operating cycle method:** Under this method, the working capital is determined based on the complete operating cycle of the enterprise. Following are the components of the operating cycle:

[2]Current liabilities are debts or obligations that are due within one year.

[3]Current assets (such as cash, cash equivalents, accounts receivable, stock inventory, marketable securities, pre-paid liabilities and other liquid assets) are assets that are utilised or exhausted (converted in cash value) within one year period. Since current assets is a standard item appearing in the balance sheet, the time horizon represents one year from the date shown in the heading of the company's balance sheet.

[4]Bills payable is the money enterprise owns to its suppliers

[5]Sundry creditors are enterprises or individuals to whom the enterprise owns money

[6]Bills receivable refer to the money that is owed to an enterprise by its customers.

[7]Sundry debtors are enterprises or individuals who owe money to the enterprise

[8]Accrued income is income that is earned but is yet to be received.

(a) Raw material and storage stage (R)
(b) Work in Process Stage (W)
(c) Finished Goods Stage (F)
(d) Debtors Collection Sage (D)
(e) Creditors Payment Period Stage (C)

Operating Cycle = R+ W+ F+ D-C

Where,

R	=	Average stock of raw material÷Average raw material consumption per day
W	=	Average work in progress inventories ÷Average cost of production per day
F	=	Average finished stock inventory ÷Average cost of goods sold per day
D	=	Average book debts ÷Average credit sales per day
C	=	Average trade creditors ÷Average credit purchase per day

Illustration

Determine the working capital requirement based on the following details:

Period Covered	**365 days**
Average period of Credit allowed by suppliers	**16 days**
Average total of Debtors Outstanding (INR)	**48,000**
Raw Material Consumption (INR)	**4,40,000**
Total Production Cost (INR)	**10,00,000**
Total Cost of Sales (INR)	**10,50,000**
Sales for the year (INR)	**16,00,000**
Value of Average Stock maintained:	
Raw Material (INR)	**32,000**
Work in Progress (INR)	**35,000**
Finished Goods (INR)	**26,000**

Where,

R	=	32000÷(440000/365)=27 days
W	=	35000÷(1000000/ 365)=13 days
F	=	26000÷(1050000/365)=9 days
C	=	48000÷(1600000/365)=11 days

Total operating cycle period = R+W+F+C- Average period of credit allowed = 44 days
Number of operating cycles in an year = 365/44 = 8.30 cycles
Working Capital required=(Total operating costs)/(No.of operating cycles annually)
Working capital requirement = 10,50,000/8.3 = INR 1,26,506

3. **Regulatory Approach to Determine Working Capital:** The RE sector is a regulated market and for most of the RE resources the Central regulator - Central Electricity Regulatory Commission (CERC) or state regulators - State Electricity Regulatory Commissions (SERCs) – determine the Feed-in Tariffs (FiTs) on a Cost Plus Basis. Under the tariff determination

process, the following are the assumptions used for determining the working capital:

a. Operation & Maintenance expenses[9] for one month;
b. Receivables equivalent to 2 (two) months of energy charges for the sale of electricity calculated on the normative CUF; and
c. Maintenance spare @ 15% of operation and maintenance expenses
d. In case of biomass based RE plants, fuel costs for four months equivalent to normative PLF are also included in the working capital cost estimation

An Entrepreneur can select any of the Working Capital estimation techniques, depending upon the data availability and their past experience.

Source: CLEAN Energy Access Network; 'Training Manual on Financial Literacy for Decentralised Renewable Energy Enterprises'; Prepared by Friends of Women's World Banking, India (FWWB); October 2018 and CERC tariff order Determination of levelized generic tariff for FY 2019-20 under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2017. Order dated 11th January 2019)

2.3.1.1 Margin on Working Capital

Working capital requirement is meant to meet the short term fund requirement for the rural entrepreneur. By the matching principle[10], it is suggested that the short term fund requirement should be met by short term sources of fund. However, rural entrepreneur may be required to finance part of the working capital for the first year through its long term sources of finance (debt and equity), as the banks may not be willing to fund the entire working capital requirement. Subsequently, the rest of the required working capital can be financed by short term sources of finance. The part of the working capital financed by long term sources of finance is called the Margin on Working Capital.

In order to meet the budgetary requirement, the rural entrepreneur will have to analyse a cost structure of debt and equity[11] based on the available budget. Further, it is also important to analyse the applicability of any incentive in terms of subsidy/ grant/ concessional loan, etc. This will help to structure the project budget most appropriately. It is important to identify the available sources of fund and incentives to meet the budgetary requirement identified above.

[9]Operation and Maintenance expenses include repair and maintenance, establishment including employee expenses and administrative and general expenses. As per the regulations, O&M expenses are escalated annually at 5.72% (Source: CERC tariff order Determination of levelized generic tariff for FY 2019-20 under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2017. Order dated 11th January 2019)

[10]Matching principle is an accounting principle which states that expenses should be recognised in the same reporting period as the related revenues. In other words, it implies that short term expenses need to be financed by short term sources of finance.

[11]See following pages for definition of debt and equity

2.4 | What are the sources of revenue that can be considered?

Revenue sources are closely linked to the rural enterprise selected and the business model adopted for delivery of the productive use. In case where the output is a tangible good, such as oil from an expeller or dried produce from a solar dryer, products can be sold on a per unit basis. For instance, oil can be sold on an INR per kg basis and similarly for dried produce from a solar dryer. The volume of the produce and the price of the produce are the two most important parameters for a rural enterprise to consider for determining the revenue model.

Services that can be provided as part of a rural enterprise include the supply of cold storage and chilling services, solar water pumps for irrigation on a rental basis, carpentry etc. In case of sale of services, the following revenue models may be considered:

1. Pay As You Go or Pre-paid Service - Where the business owner will supply the service after the payments are done. For instance, Mlinda supplies power to solar pumps on a pre-paid basis. Here the farmer is provided irrigation services measured in terms of per 1000 litres of water delivered using the pump. The service is accessed by use of a pre-paid card.

2. Post-paid Service – Where the payment for the service is received after the service has been delivered. Such a service, usually, has a defined timeline for delivery after which the payment is to be made.

3. Fee for Service- here the business owner charges a fee for the service provided. For instance, in case of carpentry the business owner charges on INR per hour basis. The fee can be paid in advance or after delivery of the service. The payment is linked purely to the service provided and there are no minimum charges, as may be applicable in the other options mentioned above.

The rural entrepreneur can decide on the revenue model based on the goods and/or services provided, as well as on the risks perceived. The key risks will include willingness and ability to pay off the consumer, the credit worthiness of the consumer, market access and availability of strong supply chain etc. In the case where subsidies are available, the price of the goods or services needs to be suitably adjusted.

Exercise: For a select rural enterprise, identify all the cost elements and estimate the total capital cost required, and annual O&M costs for the enterprise.

2.5 | What are the sources of funds that can be tapped?

The revenue sources discussed above are ongoing sources of funds for a rural enterprise. Apart from the revenue sources, there are a variety of other funding resources that a rural entrepreneur can access to meet the overall funding requirement. It is the responsibility of the rural entrepreneur to identify the sources of funds. The following are the various types of funds that can be tapped by business owners:

S. No.	Particular	Description	Potential Sources of Funds
1	**Debt**	• These funds are borrowed usually from commercial banks or other lending institutions to support the enterprise's initial investment and is repaid in instalments • The loan processes could be slow and complex, and hence need to be of a decent size to ensure administrative costs are optimised	National banks or regional rural banks (RRBs), NABARD, SIDBI
2	**Concessional Debt**	• This is a form of loan provided for any business support at low / concessional interest rates, as compared to the market rate. Loan duration can be extended to lower the cost of funding.	National banks or RRBs, NABARD, SIDBI, IREDA, and multilateral and bilateral agencies such as the World Bank, Asian Development Bank, etc.
3	**Equity**	• Equity refers to the amount of capital requirement contributed by the owner or other stakeholders in the business • Private investors such as impact investors are available for riskier projects but require a higher rate of return as compared to the debt component • Equity investors receive their returns in the form of dividends[12]. Alternatively, the equity investor can sell off its stake[13]	Owner/ stakeholders

[12]Dividends can be defined as sum of money paid by a company to its shareholders out of its profits (or reserves). Typically these payments on an annual basis, but can only be paid out of profits.
[13]At a value higher than the investment made by the equity investor

4	**Subsidy**	• Subsidy is a form of financial incentive given by the government agency to an institution/ agency/ organisation. It is mostly a percentage of the total capital cost of the business, but can also be in other forms as well. This helps to bring down the overall cost of the project.	National/ State Government through government agencies
5	**Grant**	• Grant is the most common source of funding utilised for rural enterprise projects • It can be used to fund the capital cost or equipment cost of the business. It can also include a component of training for the entrepreneurs • Grants typically do not support O&M expenses of interventions, and hence the revenue component of the project needs to be designed and sources of review clearly identified to ensure financial sustainability of the project	Multi-lateral and bilateral financing institutions such as the World Bank, Asian Development Bank, UNDP, USAID; Foundations such as Shell Foundation, Rockefeller Foundation etc.

Subsidies are often considered to be similar to grants; however, they are not necessarily the same. Grants are usually one-off allocations of funds to the beneficiary (the rural entrepreneur), which are not required to be returned. The funds usually need to be utilised for defined purposes. A grant can be considered as a type of subsidy, but subsides may take a wider set of forms than the common one-off payment form that grants do. Subsidies can be administered through a wider set of mechanisms, including capital financial assistance, interest subsidy, tax breaks and so on. For instance, the Indian RE sector has subsidies such as defined capital cost support at pre-defined capital benchmark costs, concessional rates of interest on loans, generation based incentives etc. General taxation rules applicable to grants and subsidies are discussed in the box below.

Box 2: Taxation rules for grants and subsidies

The taxability of grants and subsidies is determined based on two parameters:
a) Whether the inflow is taxable income as per the Income Tax Act?
b) Whether the entity is taxable under the Income Tax Act?

To answer the first question, we need to understand the concept of capital and revenue grants, as discussed below:

- Capital subsidy or grant: If the objective of the subsidy scheme is to enable the taxpayer to set up a new unit or to expand the existing unit then the subsidy would qualify as capital receipt
- Revenue subsidy or grant: If the objective of the subsidy scheme is to enable the taxpayer to run the business more profitably or reimburse the costs incurred in running the business, then the subsidy would qualify as taxable revenue receipt.

Further, as per the definition of income as defined by the Income Tax Act under Section 2(24), income includes an assistance in the form of a subsidy or grant or cash incentive or duty drawback or waiver or concession or reimbursement (by whatever name called) by the Central government or state government or any other authority or body or agency in cash or kind. Thus, grant or subsidy is taxable income.

Treatment of subsidy or grant for computation of tax:

Capital subsidy or grant:

- Received for procurement of depreciable asset: It shall be deducted from the total cost of asset. For instance, the cost of asset was INR 10,00,000 and the entity received a subsidy of INR 4,00,000. Then the actual cost of asset is INR 6,00,000.
- Received for non-depreciable asset: Where the Government grant relates to a non-depreciable asset or assets of a person requiring fulfilment of certain obligations, the grant shall be recognised as income over the same period over which the cost of meeting such obligations is charged to income.
- Subsidy or grant is not specific to any asset: The value of all the assets should be reduced proportionately

Revenue subsidy or grant:

- The revenue grant or subsidy should be recognised as income in the year in which it is received or should be recognised over the periods in which related costs will be incurred. For instance, an agency received revenue grant to provide training to 1000 rural women, to be completed in 5 years. In this case, the grant will be recognised as revenue over a period of 5 years spread equally across these years.

Once the taxability of the grant or subsidy is established, then the next step is to ascertain whether the entity is a taxable entity. For instance, partnership firms and corporates are taxable entities whereas charitable trusts are exempt from payment of tax, subject to certain conditions.

In such a case the entity will have to calculate tax as specified under the Income Tax Act. For instance, companies will pay at a flat rate of 25% or 30% whereas charitable trusts will not pay any tax. In case of a charitable institution, the grant or subsidy may not be taxable if the institution is able to spend 85% of its total income on the objective with which it was formed.

There are a number of financing options that rural entrepreneurs can consider. Entrepreneurs need to be aware of all these sources and need to suitably access information about them to make an informed decision. Following are possible sources that the rural entrepreneur can access:

1. **Cooperative Banks and Commercial Banks:** It is suggested that the rural entrepreneur should engage actively with cooperative / commercial banks to understand their credit terms and their suitability for the enterprise. Usually these funds have a requirement of collateral[14] for releasing of funds.

2. **National Bank for Agriculture and Rural Development (NABARD):** A key agency that the rural entrepreneur needs to stay up to date with is NABARD (https://www.nabard.org/default.aspx). The mandate of NABARD is to promote access to credit to the rural economy. It is also the nodal agency for delivering a number of central and state schemes.

[14]Collateral can be defined as the asset pledged as security for repayment of a loan, to be forfeited in the event of a default.

3. **Small Industries Development Bank of India (SIDBI):** The mandate of SIDBI is to promote, finance and develop micro, small and medium Enterprises (MSMEs) in India. There are schemes available at SIDBI that can help raise funds for starting a rural enterprise as well as for meeting any working capital requirement. It also has credit risk guarantee product[15] that can help MSMEs/ rural enterprises in accessing finance at better terms.

The above are primarily institutions that can help rural entrepreneur access debt sources. The entrepreneur needs to source equity themselves. In the case of a community owned business, there can be contributions made by the community.

A rural entrepreneur also needs to be aware of the various schemes offered by different government departments to access subsidies. At the central level, the following are the key ministries that the rural entrepreneur needs to follow and liaise with to access the subsidies.

1. **Ministry of Agriculture and Farmers Welfare:** This is the main Ministry at the central level focusing on agriculture and related activities. It has departments focusing on agriculture, animal husbandry, dairy, fisheries, agriculture research etc. The rural entrepreneur can access the latest schemes and policies of the Ministry on its website (http://agriculture.gov.in/Home.aspx#).

2. **Ministry of New and Renewable Energy:** For introduction of RE interventions in various rural enterprises, the rural entrepreneur needs to liaise with the Ministry to understand the incentives available. The updates of the Ministry are available on https://mnre.gov.in/

3. **Ministry of Micro, Small and Medium Enterprises:** The Ministry supports enterprises that have investment requirement of less than equal to INR 5 crores in equipment, plant and machinery. The support provided is in terms of setting up the enterprise (clearances, approvals, finance etc.) as well for export promotion. Details of various schemes and support are available on their website https://msme.gov.in/know-about-msme.

In addition to the above list of central government ministries that the rural entrepreneurs need to be aware of for accessing various subsidies and incentives, they also need to understand the various subsidies and support provided by the state government, where the proposed business will be located. For instance, under the Mission for Integrated Development of Horticulture (MIDH) of all the support that is provided to the farmers, 40% of the outlay for the support is provided by the State Government. It is suggested that the rural entrepreneur should interact with State Government departments responsible for agriculture and small enterprises, energy and finance etc.

Apart from these schemes, there are some relevant central government initiatives also that rural enterprises need to be aware of. These can help them raise funds for the enterprises. The box below presents relevant programmes for the rural enterprise.

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[15]Credit risk is the risk of loss resulting from a borrower's failure to repay a loan or meet contractual obligations. A credit guarantee scheme provides third-party credit risk mitigation to lenders through the absorption of a portion of the lender's losses on the loans made to borrowers in case of default, typically in return for a fee. (Source: http://www.worldbank.org/en/topic/financialsector/publication/principles-for-public-credit-guarantee-schemes-cgss-for-smes accessed on 18th February 2019)

Box 3: Relevant Government of India initiatives for rural enterprises

Mudra Loan: This loan facility has been extended as part of the *Pradhan Mantri Mudra Yojana (PMMY)* with an aim to extend affordable credit to micro and small enterprises. The loans are available to non-farm micro or small enterprises engaged in income generation through manufacturing, trading and services. Enterprises involved in allied agricultural activities can also apply for Mudra loans. A benefit of the scheme is that the borrower does not need to provide security or collateral to apply for the loan, and there are no processing charges. The credit from Mudra loans can be used for term loans and overdraft facilities, or to apply for letters of credit and bank guarantees. The maximum loan amount allowed under the scheme is INR 10 lakhs. The interest rate on Mudra loans is determined by the Marginal Cost of Lending Rate[16] (MCLR), which is calculated according to the RBI guidelines. All nationalised commercial banks can be approached for applying for the loan. The appendix 4 presents a form for applying for the loan and the checklist of documents to be attached.

Startup India is an initiative of Government of India to create an ecosystem to support the development of start-ups in India. An entity is considered as a Startup if it is meeting the following conditions:

a. Private limited company or registered as a partnership firm or a limited liability partnership in India

b. Up to seven years from the date of its incorporation/registration. But for startups in the biotechnology sector, the period has been extended to ten years from the date of its incorporation/registration (An entity shall cease to be a Startup on completion of seven years from the date of its incorporation/ registration or if its turnover for any previous year exceeds Rs 25 crores. However, in respect of Startups in the biotechnology sector, an entity shall cease to be a Startup on completion of ten years from the date of its incorporation/ registration or if its turnover for any previous year exceeds Rs 25 crores.)

c. Turnover for any of the financial years since incorporation/registration not to exceed INR 25 Crores

d. Startup to focus on innovation, development or improvement of products or processes or services, or if it is a scalable business model with a high potential of employment generation or wealth creation

For startups registered under the Startup India initiative, the following tax incentives are applicable:

- **Tax Exemption:** As per the Union Budget 2017-18, Startups get income tax exemption for 3 years in a block of 7 years, if they are incorporated between 1st April 2016 and 31st March 2019. To avail these benefits one must get a Certificate of Eligibility from the Inter-Ministerial Board of DIPP.

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[16]The marginal cost of funds based lending rate (MCLR) refers to the minimum interest rate of a bank below which it cannot lend, except in some cases allowed by the RBI. It is an internal benchmark or reference rate for the bank. MCLR actually describes the method by which the minimum interest rate for loans is determined by a bank - on the basis of marginal cost or the additional or incremental cost of arranging one more rupee to the prospective borrower.

- **Tax Exemption on Capital Gains:** Under Section 54 EE of the Finance Act, 2016 exemption of capital gain up to INR 50 lakhs arising out of transfer of long term capital asset invested in a fund notified by Central Government has been provided. Also, Section 54 GB of Income-Tax Act, 1961 has been amended to provide exemption from tax on capital gains arising out of the sale of residential house or a residential plot of land if the amount of net consideration is invested in equity shares of eligible Startup for utilising the same for purchase of specified asset.

- **Removal of Angel Tax:** Tax exemption on investments above Fair Market Value (or angel tax) has been introduced for Startups. Revised norms for claiming angel tax exemption has been provided through a notification dated 11th April 2018.

1. **Fund of Funds for Startups:** A 'fund of funds' (FFS) of INR 10,000 crores to support innovation driven Startups has been established, which is being managed by SIDBI. The corpus shall be released over two Finance Commission cycles, by 2025. FFS invests in SEBI registered Alternative Investment Funds (AIFs) which, in turn, will invest in Startups. INR 600 crore has been released to SIDBI. Further, a letter of comfort for INR 1600 crores has been provided to SIDBI. Total commitments stand at INR 1611 crore to 32 AIFs. 170 Startups have received funding from various AIFs.

2. **Learning & Development Module:** Startup India has launched an interactive online learning and development module to educate Startups and aspiring entrepreneurs. More than over 2,30,000 applicants have signed up for the course, out of which more than 10,000 applicants have completed 100% of the course successfully.

More details of the scheme can be obtained from: https://www.startupindia.gov.in/content/sih/en/startupgov/about-us.html

Stand-up India is an initiative of the Government of India to make entrepreneurship inclusive. It is a scheme to facilitate access to bank loans between INR 10 lakhs and INR 1 Crores to at least one Scheduled Cast (SC) or Scheduled Tribe (ST) or women borrower per bank branch for setting up a greenfield enterprise. In case of an ono-individual loan, they need to have controlling stake (at least 51%) in the entity. The purpose of the loan is to set up a new enterprise in manufacturing, trading or services sector led by SC/ ST/ women entrepreneurs. It is a composite loan with a cap of 75% of project cost inclusive of term loan and working capital loan. The interest rate is the lowest applicable rate of the bank for that category (rating category) not to exceed (base rate + 3%+ tenor premium). The loan is for duration of 7 years with a moratorium of 18 months. Details of the loan including details about how to apply for the loan are available at (https://www.standupmitra.in/Home/FAQs).

There are a host of agencies that can be tapped by the rural entrepreneur for accessing grants and loans. A list of these agencies and the links of their respective websites is provided in this module for ready reference of the business owners.

2.6 How to prepare a proposal for accessing grant funds?

To access funds, a rural entrepreneur needs to prepare a business proposal to present a business case for investing in the rural enterprise. Such a proposal is required not only to access debt from banks or financial institutions, but also for accessing grants and concessional loans from various agencies. These agencies all require different types of proposals. While the business proposal submitted for grants is often a simple document, bankable proposals need to include detailed financial analysis to showcase the profitability/financial viability of the rural enterprise in question. In this section, guidelines are presented for developing both these types of proposals. This section (2.6) discusses the preparation of a business proposal for a grant-making agency. Subsequently, in section 2.7, there is a detailed discussion on the financial analysis required for preparing a bankable proposal.

A grant proposal needs to convince the funding agency of the following:

1. There is a substantial need for the rural enterprise identified and it will help resolve a substantial problem that exists;

2. The rural entrepreneur has limited means and hence requires the additional funds. However, it also needs to present that it has the capability to run the rural enterprise and is committed to the same.

In most cases, agencies will have a standard format and guidelines that the rural entrepreneur will need to follow for developing the business proposal. However, there is some basic standard information that needs to be included in all business proposals (discussed below). Along with these guidelines, it is suggested that the rural entrepreneur enquires from the agency about forms and information documents that need to be submitted along with the business proposal.

2.6.1 Letter of Enquiry/ Intent

This is the first and the most basic document that needs to be included in a grant proposal for a business. The Enquiry Letter can also be used as a cover letter for the proposal. The following are the suggested contents of the letter:

- Name of the Agency approached, addressed to the concerned person[17] in that agency, with their designation and address clearly shown
- Brief about the rural enterprise as provided in the Executive Summary discussed below (Section 2.6.2.1)
- Page Limit: 1 page
- Includes names, designation, address, phone number and email of the rural entrepreneur making the proposal
- Signed by the authorised person of the rural enterprise

[17]Usually the individual responsible or in-charge for the funding in the agency

2.6.2 Content of Proposal

In case there is no specific format or guideline from the agency, it should be ensured that the following contents are covered and the proposal is concise, with maximum 15 pages as the page limit:

- Executive summary
- Problem statement or needs assessment
- Programme goals and objectives
- Strategy to set up the rural enterprise
- Evaluation and sustainability of the project
- Future funding
- Budget
- Appendices

2.6.2.1 Executive Summary (1/2 page)

This section clearly and concisely summarises the request. It gives the funding agency a snapshot of what follows. The summary should cover the following:

- About the rural enterprise and rural entrepreneur
- Include at least one sentence on the problem (for instance, the village has a large oil seed crop that goes waste or is exported to other areas and this limits the revenue capability of the farmers in the village)
- Include at least one sentence on the objectives (for instance, the aim of setting up the oil expeller unit is to increase the income of the village by INR 2 crores over a time period of 3 years, provide livelihoods to 4 personnel, including two women and help process at least one third of the oil seed crop that is currently wasted)
- Include at least one sentence on the methods (for instance, the expeller unit will be a state-of-the-art machine to ensure that the best quality oil is produced)
- Include total cost, funds already obtained and amount requested in the proposal

2.6.2.2 Problem Statement or Needs Assessment (3 to 4 pages)

When seeking funds, a specific problem area or need should be addressed. This is the most critical section of the proposal. Where possible, quantitative data should be provided to justify the need or problem; however, it should not be voluminous or difficult to comprehend. A problem statement or needs assessment should cover the following:

- Describe the target population to be served and the problem to be addressed
- Link the problem to the purposes and goals of the applicant agency and grant philosophy
- Include relevant statistical evidence, without any unsupported assumptions
- Keep the language simple to understand and section attractive by including pictures as an evidence to the need/ problem

2.6.2.3 Rural Enterprise's / Rural Entrepreneur's Goals and Objectives (1-2 pages)

This section will describe the expected outcomes of the rural enterprise proposed to be supported by the grant. Goals are more broad and general in nature, while objectives are specific and measurable outcomes. For instance, the goal for setting up an oil expeller unit could be to increase the overall development of the rural area serviced, and create avenues for additional livelihood options for the area identified. The objective will be precise in terms of 'increase the income of the rural area by INR 2 crores over a time period of 3 years, provide livelihoods to 4 personnel, including two women and help reduce wastage by at least one-third of the oil seed crop that is currently grown'. The objectives need to be SMART – Specific, Measurable, Attainable, Realistic and Time-bound. The goals and objective need to meet the following criteria:

- At least one objective for each problem or need identified in the problem statement
- Objectives are outcomes and not methods
- Describe the population that will benefit from the program

2.6.2.4 Strategy to Set up the Rural Enterprise (4 pages)

This section will present the business case for the rural enterprise. It will spell out the rationale for selecting the institutional design for the rural enterprise and the business model. The Strategy needs to be clear, concise, and present a strong case for setting up the rural enterprise. The following questions need to be answered as part of the strategy:

1. **How:** this will detail out the implementation strategy of the rural enterprise. It will provide insights into the various agencies to be involved, their respective roles and responsibilities and interactions with each other. This will also include details about the market linkages (backward and forward) and the marketing mix for the rural enterprise.

2. **When:** This will present the proposed timeline for implementation. For instance, when will the equipment be procured, when will the staff be recruited and trained etc., expected timelines for delivery of output and revenue inflow (and the concomitant market linkages).

3. **Why:** This section will detail out the reasons for the choices made in the previous sections. For instance, procurement of the cold press machine for oil making vis-à-vis an oil expeller machine; institutional model; choice business model or market that the rural entrepreneur plans to target. The justifications can be provided in terms of previous relevant experience, geographic considerations, expert opinions, government mandate etc. that may be relevant.

This strategy to set up the rural enterprise will help the agency to visualise its implementation and convince it that the rural entrepreneur is competent and well versed with the rural enterprise. The section should include the following:

- Linked to problems and objectives
- States the reasons for selection of activities
- Describes the sequence and staffing of activities
- Describes the market / client and reasons for selection
- Presents a reasonable scope of activities that can be accomplished within the time and resources of the funding
- Provides a timeline of the activities (if possible)

2.6.2.5 Evaluation and Sustainability of the Rural Enterprise (1-2 Pages)

Proposals must include a framework for monitoring the achievement of objectives by the rural entrepreneur. For funding agencies, this is an important parameter for the award of grants. The proposal needs to include measurable indicators to track the performance of the rural enterprise. The indicators need to be closely linked to the objectives of the rural enterprise, and need to not only look at the outputs, but also the processes adopted. The evaluation section should cover the following:

- Plan for evaluating achievement of objectives
- Plan for mid-course correction/ feedback mechanism
- Identify agency for third-party independent evaluation
- Clearly state the evaluation criteria and indicators; for instance, quantity and quality of oil, timeline of commissioning the machine, revenue from the intervention etc.
- Identify the data to be gathered and the process of data collection
- Mention the reporting format and frequency of reporting

The rural entrepreneur needs to have an enterprise financial viability plan, wherein long term viability of the enterprise lies with the rural entrepreneur itself.

2.6.2.6 Future Funding (1/2 Page)

As part of ensuring business sustainability, the rural entrepreneur will also need to mention other sources of funding and resources that it plans to access for the rural enterprise. For equipment purchase such as oil expellers, the rural entrepreneur needs to demonstrate the plan to meet the O&M expenses as well. This section should include the following:

- Describe how O&M and future capital costs will be funded
- Describe how the other funds will be obtained
- Include the list of funding agencies approached and current status of the application

2.6.2.7 Budget and Explanatory Notes

This section will need to clearly delineate the costs to be met by the funding agency and those to be provided by the other parties. The budget needs to show the expected income and expenses and should be structured in line with the general accounting and bookkeeping principles. Budgets should not be submitted in narrative form. Both capital costs and O&M costs need to be included. The O&M costs need to include the administrative and overhead costs expenses that the business owner will incur during life of the intervention.

The specific budget items should be reflected in the expense and income columns. Sources of income should be listed separately as part of the budget information. Sources should be actual funders, not merely prospects. Sources of funding may include fees for service, government funds, corporate/ private grants, Corporate Social Responsibility (CSR) funds etc. A budget should meet the following criteria:

- In line with the proposal narrative
- Includes project costs and O&M costs
- Includes all items asked of the funding agency and to be paid for by the other sources

2.6.2.8 Appendices – Other information

Along with the proposal, the following section should also be included, which can help the funding agency evaluate the proposal better.

2.6.2.8.1 Capability Statement of the Business Owner (1 – 2 pages)

The rural entrepreneur's capability statement should highlight prior experience and expertise in developing rural enterprises. In case this is the rural entrepreneur's first project, then risk mitigation strategies for addressing capability concerns, such as tie up with technology suppliers or training of the rural entrepreneur need to be included.

The capability statement needs to include the structure of the organisation, primary activities, markets and services. The statement needs to establish credibility of the rural entrepreneur. The qualification of the organisation section should include the following:

- Describe rural entrepreneur's purposes and long-range goals
- Provide evidence of the rural entrepreneur's accomplishments, markets covered, supported with statistics and evidences
- Provide qualification of key staff members and other evidence of administrative competence

Other appendices that can be included are (if applicable):

- Certificate of incorporation
- Annual report of the business owner (if any)
- Verification of tax-exempt status
- Organisation's by-laws
- Name and affiliation of the officers and Board of Directors members
- Financial statements for last completed financial year
- Biographies of the key personnel
- Articles/ endorsements/ awards

2.6.3 Guidelines for Format and Appearance

In most cases, funding agencies will have their formats pre-defined that need to be followed. Many grant-making organisations have an annual window of applications, which the rural entrepreneur needs to be aware of. The proposal needs to be focused, concise and attractive manner.

There are five critical factors that need to be considered for taking a funding decision:

- Project purpose
- Feasibility
- Community need for the project
- Applicant's accountability
- Applicant's competence

The business owner needs to ensure that the proposal is packaged such that all these points are covered.

2.7 | Developing a Bankable Project Proposal

For developing a bankable proposal, the business owner can follow the above guidelines, but there is also a need to undertake additional financial analysis. This section discusses in detail the financial analysis required and can be used as a guide by a rural entrepreneur to analyse financial viability of their rural enterprise.

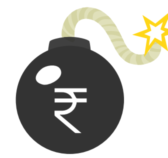
In this section the fundamentals of the business finance are explained in simple terms and with help of examples to facilitate easy understanding. The concepts covered in this section are:

Concepts of Finance

- Budget and its importance
- Fixed and variable costs
- Working Capital

Financial analysis

- Break Even (BE) sales and BE Analysis
- Interest rate calculations
- Internal Rate of Return (IRR)
- Cash flow statement
- Income projection Pro-forma



Sensitivity analysis

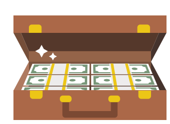
- Acid test ratio
- Debt service coverage ratio

2.7.1 What is Budget?

For a rural entrepreneur, the budget is the ultimate tool to monitor and to keep a control of the enterprise. It is a forecast of all cash sources and expenditures, and helps determine the availability of money, where it can be used and if the business targets will be achieved. It shows the flow of money into, through and out of business. There are three elements to the budget:

Sales revenue

Costs



Profits

Sales Revenue[18]: This is the key figure, estimating revenue that will accrue to the business. The estimates need to be based on past sales records or industry averages[19]. Once the sales targets have been fixed, then the necessary costs can be estimated that would help in realising the net sales revenues.

[18]The concept of revenue has been discussed in Section 2.4

[19]In case of a new rural enterprise

Costs: **Estimating costs is a complicated process, where a small change in cost assumptions can render the entire budgeting exercise futile. Costs[20] are of two types – ones that change with volumes of sales and ones that do not change. These are called variable costs and fixed costs, respectively.**

- **Variable Costs:** Variable costs are those that change directly with the sales volumes. For instance, the cost of inventory or raw material is a variable cost. Higher the sales, more are the raw materials required. For instance, in case of an oil expeller, if the rural entrepreneur has a high demand to cater to, it will need to procure matching amount of oil seeds to process and produce the oil and meet the demand.

- **Fixed costs:** Fixed costs are those that remain unaffected by the sales volumes. Hence, these costs need to be incurred, despite the sales volume. For instance, the rent to be paid for the place where the oil expeller is installed is a fixed cost component.

- **Semi–variable costs:** There are costs that have both fixed and variable cost components. For instance, in case of an oil expeller unit, the basic salary that needs to be paid to the operator remains constant and is not determined by the hours of operation and hence is fixed in nature. However, in case of the sales team, higher sale than the target can lead to variable salary and hence it is a variable cost component for the rural entrepreneur.

Profits: **For any business to be viable in the long run, the sales revenue must always be greater than the costs. This difference in the sales and the costs is called profit.**

In summary,

Sales – Costs = Profits   Or   Sales = Cost + Profits

This implies that the rural entrepreneur's sales targets (volume and value terms) need to cover all the costs and also provide the business owner a reasonable amount of profit.

2.7.1.1 What is Working Capital?

Working capital is the difference between a rural entrepreneur's current assets and current liabilities. It is the amount of money required by the rural entrepreneur to cover their short term liabilities. It includes:

- **Cash**
- **Marketable securities[21]**
- **Account receivables**
- **Inventories**
- **Accounts payable, and**
- **Wages/ salaries and taxes**

[20]This is an alternate view of looking at costs. This is from the perspective of recovery of costs from revenue. Capital Cost and O&M Costs discussed in Section 2.3 are from the perspective of investment.

[21]Marketable securities are securities (equity and debt) that can easily be tradeable i.e. bought and sold on the exchange

2.7.1.2 How to prepare a budget?

To prepare a good budget; the following three questions should be answered:

- **How much profit does the rural entrepreneur expect to earn?**
- **How much will it cost (both fixed and variable costs) to generate that profit?**

Based on the answers to the above three questions, the budget can be prepared.

2.7.2 What is Break Even Analysis?

Break Even (BE) Analysis is the most basic tool used to measure profitability of an enterprise. BE analysis helps determine what sales revenue is required to ensure that all the costs are covered, and this what volume of product has to be sold to meet that (the BE sales volume). At BE there is no profit, implying that any amount of sales more than BE will result in profits. At the breakeven point, the variable cost plus fixed costs is equal to the total sales revenue. This can be expressed as:

$$F + V(X) = P(X)$$

Where,

V = variable costs | **X = volume of output or sales** | **P = price per unit of the output**

Illustration

A rural entrepreneur has to set up an oil expeller unit to sell mustard oil to the customers. Assuming that there is no subsidy on the machine, the following are expected to be the rural entrepreneur's costs:

- Cost of production of one unit of mustard oil = INR 60 per unit
- Fixed costs per month = INR 20,000 (including rentals, salaries, communication, promotion etc.)
- Additional variable costs per unit of oil bottle sold = INR 20
- Sale price of a bottle of mustard oil = INR 100

Exercise: What are the breakeven sales of oil bottles for the business owner?

Assuming that breakeven sales is V_b
The breakeven for the business owner will be:
$100\ V_b – 20,000 - (60+20)*V_b = 0$
$20\ V_b = 20,000$
$V_b = 1000$ bottles to be sold per month (approximately)

This implies that the rural entrepreneur needs to sell more than 1000 bottles of mustard oil per month to make profits and go beyond BE.
Now, if the rural entrepreneur has to recover its salary (about INR 5,000 per month) and also make a profit of 5,000 per month, then the number of bottles to be sold will be:
$100\ V_b – 25,000 – (60+20)*\ V_b = 5000$
$20\ V_b= 30,000$
$V_b = 1500$ bottles per month

This indicates that in order to earn a modest profit and salary for the rural entrepreneur, the enterprise needs to sell at least 1500 bottles of mustard oil monthly. However, if the rural entrepreneur is unable to sell 1500 bottles, and sells only 750 bottles, then rural entrepreneur will either need to reduce costs or increase the sale price to earn the profits and salary.

The rural entrepreneur decides to do both.

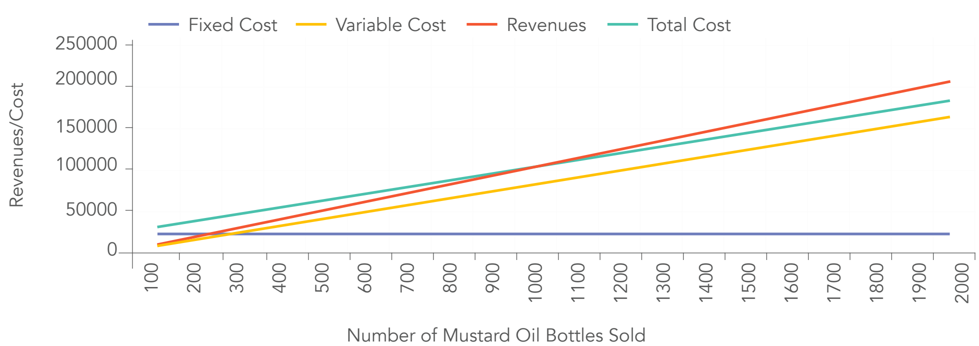
- It invests in the equipment and oil processing unit to improve the quality of product, consequent to which the fixed costs increase by INR 1000 per month, but the variable costs reduce to INR 68 per unit.
- For the improved product, the rural entrepreneur can charge a premium and the sale price is increased to INR 110 per bottle
- The rural entrepreneur salary and profit remains the same

The result will be:
$110\ V_b- (20000+12000)-68\ V_b= 5000$
$42\ V_b = 37000$
$V_b= 881$ (approximately)

Here it is seen that with a small incremental investment, the rural entrepreneur is able to charge a premium and is able to service the market better while maintaining the same profit levels. With the improved product, the likelihood of the rural entrepreneur to tap more markets improves and can result in increased profits as well.

Graphical representation of breakeven analysis is presented below.

Figure 1: Graphical representation of breakeven analysis



Now, assuming that the rural entrepreneur needs to expand its business across the State and for that they require an additional investment of INR 3,00,000. Where will they get this money from and how? This is called the 'financing' question for the enterprise, implying the means of raising capital or money required to invest in the enterprise. Following are the ways for raising debt and equity for an enterprise.[22]

- **Personal financing:** This is the money that the rural entrepreneur (at an individual level) may have ready access to and may not have to pay any interest on. It may be sourced from personal savings, borrowed from relatives or friends, etc. This can be considered as an equity investment.

- **Equity financing:** Equity financing does not require the business to directly repay the money lent or invested by the financier. Under such financing, the financier becomes a partner in the business ventures a shareholder/ stakeholder and gets a share in the profits. They also have some degree of control over the business.

- **Debt financing:** This is the most preferred way of financing a new business. Here it is a direct obligation of the rural entrepreneur to pay the interest on the money lent by the financier. The advantage of debt funding is that there is no devolution of control by the rural entrepreneur. The financier has a limited role in functioning of the enterprise, and requires only timely repayments at the agreed rate of interest.

2.7.3 What is Interest? What are various methods of calculating interest?

Interest is the cost of borrowing or value for money loaned. In debt financing, the borrower (rural entrepreneur) receives money from the lender (financier). An interest rate is an amount, usually stated as a percentage, demanded by the lender as a charge to make the fund available to the borrower. Following are the examples of some interest calculations.

If the business owner borrowed INR 1,000 for 1 year at 12% per annum interest then it has to repay INR 1,120 at the end of the year. Of this, INR 1,000 is the principal (capital or p) and INR 120 is the interest (I or i). Together they are called Principal and Interest (P&I or p+i). If the rural entrepreneur had borrowed INR 1000 for 1 year at an interest rate of 1% per month compounded (meaning paying interest as well as principal), then it will have to repay INR 1127 at the end of the year.

Similarly, INR 1000 borrowed for 2 years by the business owner for 12% per year, compounded requires a payment of INR 1254 at the end of 2 years.

[22]A detailed discussion on these sources of financing is presented in Section 2.5. Subsidy in most cases provided by the government and there are separate grant-making organisations (listed in Appendix 8). There are multiple sources for funding debt and equity, and these are discussed above.

An interest calculation based on borrowing INR 1000 for 5 years at 12% interest per year compounded is as follows:

Table 4: Illustrative calculations for compound interest

Particulars	Amount (INR)
Year 0	**1000.00**
Add: 12% for Year 1	**120.00**
End of Year (EoY) Year 1	**1120.00**
Add: 12% for Year 2	**134.40**
EoY 2	**1254.40**
Add: 12% for Year 3	**150.53**
EoY 3	**1404.93**
Add: 12% for Year 4	**168.59**
EoY 4	**1573.52**
Add: 12% for Year 5	**188.82**
EoY 5	**1762.34**

Hence, if the loan is to be repaid after five years the payment would be INR 1762.34 of which the principal returned is INR 1000, whereas the interest will be INR 762.34.

There are three methods for loan repayment calculations, which are:

- Interest only – where only interest is paid during the loan duration and the last instalment is paid along with the principal amount
- Equal payments – where interest and the principal are spread evenly over the entire loan term
- Equal principal payment – in this case, the principal amount is paid in equal instalments, while the interest decreases (based upon the balance principal amount)

Taking forward the illustration discussed earlier, where the rural entrepreneur is to invest INR 3,00,000 in its oil expeller business. It is assumed that the rural entrepreneur has been able to raise INR 1,50,000 through its personal sources. On the basis of this, their personal finance record, and also by giving collateral, they are able to obtain the remaining amount as a loan. The following are then the repayment plans that they can consider.

Table 5: Repayment options for the business owner

Repayment plan	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Interest Only	24000	24000	24000	24000	24000	24000	24000	24000	24000	174000	390000
Equal Payment	31035	31035	31035	31035	31035	31035	31035	31035	31035	31035	310352
Equal Principal	39000	36600	34200	31800	29400	27000	24600	22200	19800	17400	282000

Given the three options, which options should the business owner select?
To answer the above question, the rural entrepreneur needs to calculate the Net Present Value (NPV) of the future cash outflows in all the three options. The highest NPV will be the preferred option.

2.7.4 What is Net Present Value?

Present value (PV) is a method to calculate current value of future cash flows. A discount rate (similar to interest rate) is used to calculate the PV. While an interest rate looks forward in time, a discount rate works backward in time, taking a future cash flow and giving it a value today. Essentially this is recognising that receiving INR 100 today is generally worth more to you than receiving INR 100 in, say, 1 year's time. The present value is calculated in the following manner:

PV = A/(1+D)T

Where,

A = Amount expected | **D = Discount rate,** | **T = Time (in years)**

If the rural entrepreneur were to earn INR 10,000 in one year from today, the present value of that sum, at a discount rate of 12%, would be:

PV = INR 8,928.57

This implies that if the rural entrepreneur was to earn INR 8,928.57 today, it would be equivalent to getting (cash inflow) of INR 10,000 in the next year. Similarly, if the rural entrepreneur were to give INR 10,000 in two years' time from now, its present value would be INR 7,971.94.
The NPV is the sum total of the present value of all such cash outflows and inflows over a period of time. This is used when calculating the present worth of future investments or cash inflows or instalment payments.

The formula is as follows:
NPV = A1/(1+D/100)1+A2/(1+D/100)2+A3/(1+D/100)3+...........+An/(1+D/100)n

Where A1, A2, A3…An are cash flows expected in 1,2,3 and nth year respectively and D is the discount rate.

The investment decision criterion with NPV is to accept a project with positive NPV and in case of multiple options, the project with the highest NPV is the preferred project. Example: Following is the expected cash flow statement for an oil expeller unit. Assuming a discount rate of 12% the NPV calculations are presented in the table below.

Table 6: NPV estimation at 12% discount rate

Enterprise	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	NPV @ 12%
Oil Expeller Project	-250000	50000	50000	70000	75000	80000	30000	40000	40000	50000	30000	48681

Determination of NPV is sensitive to structuring of the expected cash flows. The value of a cash inflow or outflow closer to the start of the project has more value as compared to cash flows in towards the end of the project. The second factor on which the NPV value is sensitive to is the discount factor. An extremely high discount rate can make the NPV of a project negative and similarly, extremely low discount rate will make the NPV positive for the project. Hence, determination of the discount factor is crucial for NPV calculations. Given the sensitivity of NPV calculations to the choice of discount rate, this method is probably not best suited to financial planning for small rural enterprises. An alternative and more robust approach in such situations is to use what is known as the Internal Rate of Return (IRR) to assess the viability of such businesses. This is address in the next section below.

2.7.5 What is Internal Rate of Return (IRR)?

IRR is another technique for taking the investment decision of investing in a project or not. IRR denotes that rate of return that the project must earn to ensure that project is at break-even. Alternatively, IRR is the discount factor at which NPV is zero; implying that it is the maximum discount rate that can be assumed by the rural entrepreneur while evaluating the project feasibility.

An IRR calculation provides the discount rate that a project produces rather than applying a discount rate determined outside the project.

It is calculated by equating the present value of expected cash outflows with the present value of the expected inflows. Mathematically it may be represented as:

A0= A1/(1+R/100)1+A2/(1+R/100)2+A3/(1+R/100)3+…………+An/(1+R/100)n

Where A0 is the initial investment and A1, A2, A3…..AN are the cash flows expected in 1,2,3,… nth year respectively and R is the rate or IRR.

Estimation of IRR is a guess-estimate exercise if done manually. It can be determined with ease using software such as MS-Excel.

Example: A RO plant operator has planned to set up a rural enterprise with the following cash flow. The IRR for the project has been determined using MS-Excel function – IRR.

Table 7: Estimation of IRR for an RO Enterprise

Enterprise	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	IRR
RO water project	-300000	40000	30000	50000	50000	60000	60000	70000	75000	65000	75000	12.07%

Exercise: Determine NPV and IRR of the following RO project:

Enterprise	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
RO Project	-100000	20000	30000	40000	50000	30000

2.7.5.1 What do these values mean? Or what should be the acceptance criteria?

The rural entrepreneur has to compare the IRR from the three strategies with the required rate of return. If the IRR is more than the required rate of return, then the proposal would be accepted, otherwise not. For example, if the required rate of return that the rural entrepreneur has to show to the Bank is 16%, all the above proposals will be disqualified and it may not get the loan of INR 1,50,000. The Box below discusses the factors considered by the bank for determining the required rate of return.

Box 4: Determinants of required rate of return for a Bank

To determine the required rate of return or the rate of interest to be charged by the bank is not a simple task. There are a number of factors that need to be considered by the bank to determine the rate of interest to be charged from a project. Different rate of return can be charged from different projects in the same sector. Some of the determinants for the required rate of return are discussed below:

1. **Base rate:** Base rate is the minimum rate of interest that a bank will charge. Each bank determines its own bank rate, based on Reserve Bank of India (RBI) guidelines.

2. **Exposure to the sector:** The second determinant is the exposure of the bank to the sector. Exposure means the existing loan portfolio the bank has in the sector to which the project belongs. Sectors such as Agriculture, Micro, Small and Medium Enterprises and Renewable Energy are sectors identified under priority sector lending, wherein, banks are mandated to invest a fixed percentage of their assets in these sectors. The rate of interest could be higher for projects seeking funds within the priority sector lending sectors, if the bank has already reached its limit. For projects (in sectors where banks perceive higher risk) seeking funds may be required to pay higher rate of interest.

3. **Risk assessment of the project:** Risk assessment of the individual project will be a determinant of the rate of interest charged by the bank. Project specific for instance location, contractual obligations, promoter reputation etc. are some of the demand side parameters that will be considered. Understanding of the banker about the project, its relevance and typical risk mitigation interventions are the supply side parameters that will play a role in understanding the risks perceived.

2.7.6 Developing a Financial Plan

The outcome of financial planning is the financial plan for the business. This financial plan is part of the project proposal to be submitted to the Bank for financing. The financial plan is linked to the marketing plan[23] as well, as the costs incurred and the expected sales resultant of the marketing efforts feed into the financial plan. A financial plan includes the following:

[23]Discussed in module 1 of the training manual

2.7.6.1 Cash Flow Statement

Cash flow statements are financial projects of the business plan. They include cash inflow and outflow over a period of time and are used for internal planning. If it is an established business, worksheets can be put together from the actual figures of income and expenses of previous years combined with projected changes for the next period. If it is a new venture, the rural entrepreneur will have to project the financial requirements and disbursements. The profit at the end of the year will depend on the balance of cash inflow and outflow. The cash flow statement identifies:

- **When the cash is expected to be received**
- **How much cash will be received**
- **When cash must be spent to pay bills and debts**
- **How much cash will be needed to pay expenses**

The rural entrepreneur needs to ensure that the projections take into account receivables and any credit period offered. The cash flow statement deals only with actual cash transactions and not with depreciation or other non-cash expense items.

A cash flow statement should be prepared on a monthly basis for the next year and revised not less than quarterly to reflect actual performance in the preceding three months of operations. A cash flow statement represents the cash position of the enterprise, and an enterprise must always have sufficient cash to ensure continuity of business. Cash is required for all transactions in business including paying its expenses, debt repayment, taxes payout and capital investment etc.

Cash is a key component to determine business perpetuity and to stay solvent. In case of shortage of cash, the enterprise may be declared bankrupt.

2.7.6.2 Preparing Cash Flow Statement

An illustrative format of a cash flow statement is provided below. The vertical columns represent the twelve months. Horizontal rows contain figures for the sources of cash and cash to be paid out.

The statements are projected for each month, reflecting the flow of cash in and out of the business for a one–year period. Following are the guidelines for developing the cash flows:

- Estimate the beginning cash balance (Cash brought forward). This is the starting point for the first month of the business cycle
- Identify and estimate the cash receipts for the first month
- Add beginning cash balance and cash receipts to determine the total cash available for the month
- Project direct, indirect[24] and interest expenses for the month
- Project cash outflows due to taxes, long-term assets for instance building, equipment, land etc. and loan repayments. Also project any amounts to be drawn by owners, for instance, dividends, stake sale etc.

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[24]Indirect costs can be defined as expenses that are incurred to operate a business as a whole or a part of it and the costs cannot be directly associated with the cost of the product, service, or customer. These expenses include rent, utilities, general and administrative expenses etc.

- Add all the expenses and draws to estimate the cash outflows
- Subtract total cash paid out from total cash available and estimate the cash balance/ deficiency to get cash balance at the end of the month
- Carry forward the cash balance at the end of the month (Cash carried forward) to the next month's opening balance (cash brought forward)
- Repeat the process for all the months of the business cycle

To complete the total column, proceed as follows:

- Enter the beginning cash balance for the first month in the first space of the total column
- Add the monthly figures for each category horizontally and enter the result in the corresponding total category
- Compute the total column in the same manner for each of the individual months to arrive at the cash to be carried forward at the end of the year.

Table 8: Suggested format for Cash Flow Statement

Cash Flow Statement													
Name of the Business	Date					Projected/ Actual							
	Apr.	May	June	July	August	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Total
Start of the Month													
Beginning Cash Sales													
CASH IN													
Cash Sales													
A/R Collection													
Interest Income													
Sale from Fixed Assets													
Loan Received													
Other Cash Sources													
TOTAL CASH IN													

CASH OUT													
Inventory and Raw Material													
Salaries and Wages													
General Supplies													
Rep and Maintenance													
Advertising													
Travel													
Shipping and Delivery													
Legal and Accounting Fees													
Utilities													
Interest Charges													
Taxes													
Other Operating Expenses													
Loan Repayments													
Fixed Asset Payments													
Capital Expenditures													
Owner's Withdrawal													
TOTAL CASH OUT													

End of the Month													
Cash Flow													
Cash Balance													
Operating Data													
Sales Volume													
Accounts receivables													
Bad Debts													
Inventory in Hand													
Accounts Payable													
Depreciation													

2.7.6.3 Three Year Income Projections

The three-year income projection is a proforma income statement. The difference between projected income statement and projected cash flow statement is that former includes three-year projections of only income and deductible expenses while the cash flows statement includes all sources of cash and cash to be paid out. Submission of three year income statements is an accepted industry practice for small enterprises to banks while applying for a loan.[25] Taking the same in cognisance, three income projections have been suggested here.

There are various opinions as to what period of time should be covered estimating income and expenses i.e. whether it should be on an annual or monthly basis. If income projection is for the purpose of obtaining a loan, this should be prepared as per the specific requirement of the lender. If the projections are for internal use, three- year projections are suggested with annual projections.

Table 9: Format for an Income Statement

INCOME STATEMENT		
For the Period beginning...................... and ending......................		
Income		Amount
1	**Net Sales (Gross returns @ allowance)**	
2	**Cost of Sales**	
A	Inventory (Jan 1)	
B	Purchases	
C	Cost of goods available for sale (a+b)	
D	Deduct Inventory (March 31)	
3	**Gross Profit on Sales**	

[25]For bigger enterprises, seeking larger funds, the accepted industry practice is the preparation of five to ten year projections and submission of the same to the bank along with loan applications.

Expenses		Amount
1	**Variable expenses (controllable) (selling)**	
a	Advertising	
b	Freight	
c	Packaging costs	
d	Parts and supplies	
e	Sales salaries	
f	Misc. direct expenses	
2	**Fixed Expenses (Overhead) (Administrative)**	
a	Insurance	
b	Licenses & permits	
c	Office salaries	
d	Rent expenses	
e	Utilities	
f	Misc. indirect expenses	
Total expenses		
Income from operations (gross profits less expenses)		
Other income		
1	Interest income	
	Other expenses	
1	Interest expenses	
	Net profit (loss) before taxes	
	Income taxes	
	Net Profit (loss) after income taxes	

All the above formats are also relevant for developing the financial plan for the rural enterprise. The contours of a financial plan that the rural entrepreneur needs to develop is discussed in the last section of this module.

2.7.7 Sensitivity Analysis

Along with financial planning, it is essential that the rural entrepreneur monitors the performance of the enterprise to ensure financial sustainability of the project. For performance tracking, there are financial ratios that the rural entrepreneur can refer to. These ratios track profitability, operational efficiency, financial efficiency and financial health of the business. For the rural entrepreneur, the following are the key ratios they should track.

2.7.7.1 Quick Ratio or Acid Test Ratio

This ratio measures the capability of the business owner to meet its short term liabilities. The ratio is defined as:

$$\textbf{Quick ratio} = \frac{\textbf{(Cash+Account Receivables+Short Term Investment)}}{\textbf{(Current Liabilities)}}$$

The ratio does not consider inventories as part of the ratio as they are as liquid as other current assets included in the ratio. This ratio is considered an improvement over the current ratio, which is the ratio of current assets to current liability. Typically, 1:1 ratio is an accepted level of the quick ratio, as it is expected that with this the business will be able to quickly meet all its current or short-term liabilities.

2.7.7.2 Debt Service Coverage Ratio

Debt Service Coverage Ratio (DSCR) as the name suggests measures the capacity of the business to service the debt. The ratio can be defined as a measure of the cash flow available to pay current debt obligations. This is one of the most important ratios that is measured and tracked by the bankers to assess the financial health of the rural entrepreneur/ enterprise.

$$\textbf{Debt Service Coverage Ratio} = \frac{\textbf{Net Operating Income}}{\textbf{Total Debt to be Serviced}}$$

Total Debt includes both principal and interest payments to be done. While there are industry-specific standards that bankers follow, but typically an acceptable DSCR is about 1.2 and higher.

2.7.7.2.1 Importance of DSCR

DSCR is an important ratio from the lender perspective as it indicates the level of excess funds available to the rural entrepreneur for servicing the debt. Most lenders have a specific cut-off ratio that must be met for both average and minimum DSCR. If a project does not meet the threshold DSCR, then the lenders have the following options:

- Lower the amount borrowed (and increase the amount of equity commitment of the business owner)
- Set up reserves or credit arrangements to pay the shortfall amount in the specific year

DSCR and IRR are the key tools available to the rural entrepreneur to determine the financial sustainability of the project. They are an indicator of the investment quality of the project. Both these measures are closely followed and maintained by the rural entrepreneur. Through the above-mentioned analysis, once the financial viability of the project is established, the rural entrepreneur needs to consider the options it has for legally structuring the rural enterprise. The possible institutional structures for setting up the rural enterprise are discussed in the next section of the module.

3

MODULE 3B

Institutional arrangements for rural enterprises

3.1 | Course Overview

Training Day 1	
Course Title	Institutional arrangements for rural enterprises
Objective	Training module aims to familiarise participants on the different types of institutional setups that are in place to run a social/rural enterprise
Duration	About 1 hour 15 mins classroom session
Course Modules	• Different institutional models • Types of legal structures that can be adopted by rural enterprise • Relevance of each of the structure for rural enterprise • Process for setting up various institutional models
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, commerce graduates
Employment Linkages	
Teaching/Delivery Method	• In class lectures • Voice byte/video recording of field practitioner in following a particular institutional model
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 the current institutional models used in running rural enterprises?	

3.2 | Introduction

A core part of the planning process is to determine the structure in which the rural enterprise can be institutionalised. There are a number of institutional models that can be considered while developing a rural enterprise. Legal entities can be formed by an individual leading the enterprise or a group of people forming and shaping up the enterprise. There are organisations in India wherein a legal entity has been formed by producers of various produce including agriculture, milk, fishermen, artisans, weavers, craftsmen etc. Jointly these individuals can help improve their market access and bargain power.

It must be highlighted here that this section is relevant only when the rural entrepreneur is planning to have a separate structure from the mini-grid for the proposed rural enterprise. One can continue with the existing structure under which the DRE plant is being run. However, it is always better and advisable to separate the two entities, as the lines of business are different and bad performance of one business will not impact the prospects of other business, especially when debt or equity is planned to be syndicated for the proposed venture. Moreover, the intent of setting up both the enterprises (mini-grid and productive use enterprise) is different, and hence they should also be separate structurally.

There are a number of legal structures that can be adopted by producer organisations:

1) Co-operative;
2) Non-Government Organisation (NGO);
3) Company defined under Section 8 of the Companies Act, 2013; and
4) Private Limited Company

Apart from the above legal structures, another important institutional structure relevant for a rural entrepreneur is Self Help Groups.
In this course, each of these institutional models is discussed in detail.

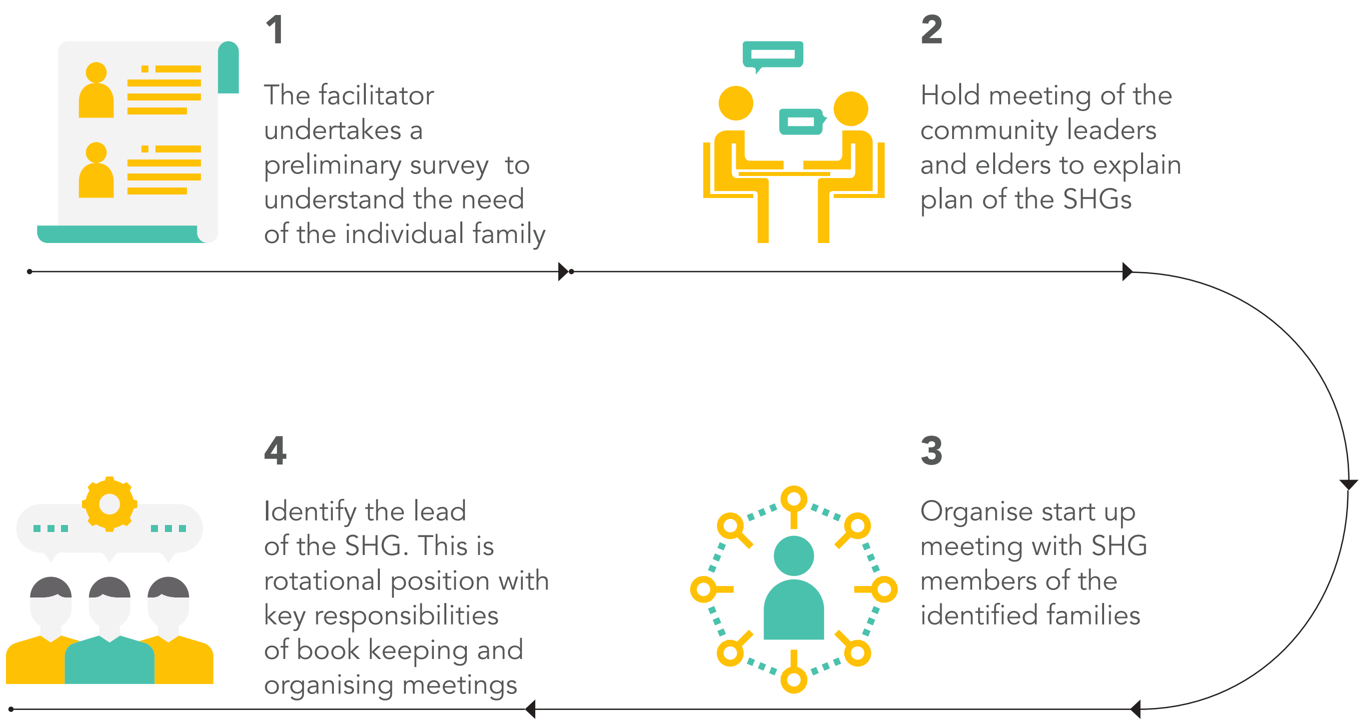
3.2.1 Self Help Groups

Self Help Groups (SHGs) are small voluntary association of poor people, preferably from the same socio-economic background. It is an informal group of people who save for a common purpose and their small savings are aggregated under the SHG and deposited in a bank. Only one member from a family can be part of the SHG and it is suggested that there should be maximum of 20 members in one SHG. More than 20 members could limit active participation of the SHG members.

SHGs can be a significant vehicle for empowering the poor, especially the women. It also helps in developing collective decision making among members, and encourages habit of saving among members and facilitate the accumulation of their own capital resource base. Depending on the focus of the SHGs it can also motivate members taking up socially responsible activities contributing to rural development.

An SHG can be formed with the support of a facilitator, who informs the interested households about the benefits of SHGs. The facilitator can be Non-Governmental Organisations (NGOs), Social Workers, health workers, village level workers, informal associations of local people, development-oriented government departments, Banks Bank personnel, member/participant in the Vikas Volunteer Vahini (VVV) Programme of NABARD etc. The process to be followed for setting up an SHG as led by the facilitator is presented in the figure below.

Figure 2: Process for setting up an SHG



Source: A Handbook on Forming Self-Help Groups (SHGs), NABARD Publication

3.2.2 Co-operative

Co-operative Societies (or Co-operatives) are a voluntary association of individuals with common requirements who work together to achieve common economic interest. A Co-operative can be formed under the Co-operative Societies Act, 1912 or State Co-operative Societies Acts. Co-operatives are state subject, and hence State Acts are applicable, where they have been enacted. States that do not have such Acts can adopt the Co-operative Society Act, 1912. The figure below summarises the typical process that needs to be followed for registering a cooperative. This will need to be aligned with the applicable Act.

From the perspective of having a DRE based rural enterprise; cooperative structure is more suited to enterprises which are already owned by a group of people, especially in a community owned project setup

Figure 3: Process of Registration of a Cooperative

Source: https://enterslice.com/learning/state-co-operative-society/

There can be situations wherein an enterprise is encouraged to develop a cooperative of farmers who are to supply raw material to the enterprise. For example, if existing rural enterprise is getting into the business of oil expelling and plans to procure mustard from local farmers, it can encourage and assist the farmers in forming a cooperative. While on one hand this will help farmers to jointly bear the risk and get better support from government or banks; on the other hand the enterprise will have to deal with one body only in place of many individuals.

There are 6 types of co-operatives that can be formed. These are briefly discussed in the Box below.

Box 5: Different types of Co-operatives

1. **Consumers' Co-operative Society:** The objective of this society is to safeguard interests of the consumers by making consumer goods available to them at a reasonable price. They buy goods directly from the producers or manufacturers, eliminating middlemen and thus lowering the costs. Kendriya Bhandar, Apna Bazar and Sahkari Bhandar are examples of consumers' co-operative society.

2. **Producers' Co-operative Society:** These are cooperatives formed to safeguard the interests of small producers (including farmers, craftsmen, artisans etc.) by providing them with raw materials and inputs they require for production such as raw materials, tools and equipment, machinery, etc. Handloom societies such as Andhra Pradesh State Handloom Weavers Cooperative Society (APCO), Bayanika, Haryana Handloom, Farmer Producer Organisations (FPOs) etc., are examples of producers' co-operative society.

3. **Co-operative Marketing Society:** These cooperatives are formed by small producers and manufacturers to support them in marketing and sale of the produce/ outputs. The cooperative is responsible for collecting the produce/ outputs from the individual members and selling them. Cooperatives such as Gujarat Co-operative Milk Marketing Federation that sells AMUL milk products is an example of a marketing co-operative society.

4. **Co-operative Credit Society:** These cooperatives provide financial support to its members. It accepts deposits from members and grants them loans at reasonable rates of interest. Village Service Co-operative Society and Urban Cooperative Banks are examples of co-operative credit society.

5. **Co-operative Farming Society:** These are cooperatives of small farmers to work jointly and thereby enjoy the benefits of large-scale farming. Lift-irrigation cooperative societies and pani-panchayats are some of the examples of co-operative farming society.

6. **Housing Co-operative Society:** These cooperatives provide residential houses to members. They purchase land, develop it and construct houses or flats and allot them to their respective members. Some societies also provide loans at low rate of interest to members to construct their own houses. The Employees' Housing Societies and Metropolitan Housing Co-operative Society are examples of housing co-operative society.

Source: Ministry of Statistics and Programme Implementation. Government of India

For rural enterprises, collective efforts put under the co-operatives help reduce costs and facilitates the exchange of knowledge and experience.

3.2.3 Non – Government Organisation (NGO)

There is no tight-fitting definition of an NGO. It is commonly understood as an organisation (not affiliated to any government authority) that is set up local, state, national or international levels to address and serve the needs of their targeted people and their interests. It is an organisation set up to contribute to development.

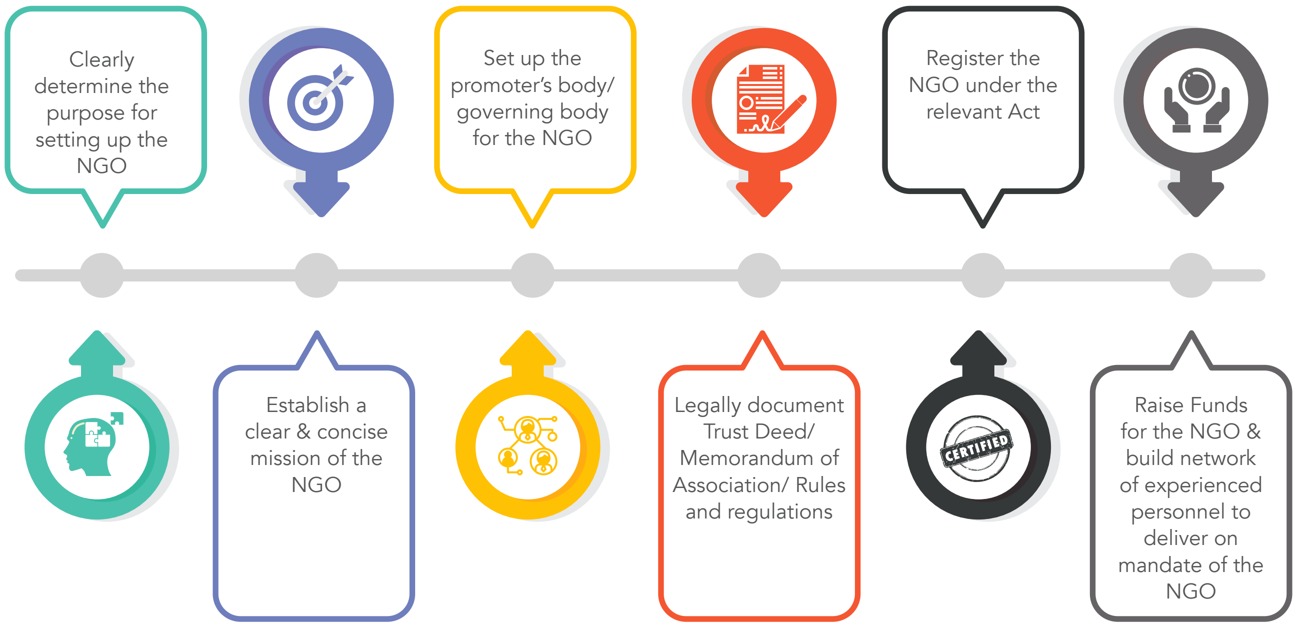
NGOs can be set up as a Trust, Society or as a Non-Profit Company. Under each of the structure, it is governed by a separate set of rules and regulations. The table below presents the details of each of the structure and the requirements under each for setting up an NGO.

Table 10: Comparison of the three structures under which NGOs can be set up in India

Parameter	NGO as a Trust	NGO as a Society	NGO as a Section 8 Company
Objective	Charitable, Socially beneficial	Charitable, Literary, Scientific etc.	Non-profit activities
Legal Status of the NGO	Trust	Society	Not for Profit Company
Applicable Law	India Trusts Act, 1882/ Bombay Public Trust Act	Societies Registration Act, 1860	Indian Companies Act, 1956
Registering Authority	Charity Commissioner/ Deputy Registrar	Registrar of Societies of the concerned state	Registrar of Companies
Main Documents	Trust Deed	Memorandum of Association and Rules & Regulations	Memorandum and Articles of Association
Minimum of Number of people	Minimum 2 people	Minimum 7 people	Minimum 3 people
Formation	Simple and easy	Simple and easy	Complex procedure, 3 to 6 month
Management	Very few restrictions observed under the Act	Few restrictions observed under the Act	In accordance with the Company Law
Statutory Regulations	Nominal	Very limited	Exhaustive but mature
Removal of members	Not applicable	Possible without consent	Not possible without consent
Dissolution or take over by the state	Possible	Possible	Very difficult

Source: Adapted from NABARD, Farmer Producer Organisations - Frequently Asked Questions (FAQs), Mumbai 2015

Figure 4: Broad process to be followed for the formulation of an NGO



NGOs are widely adopted structure for contributing to the development of rural enterprises. Mini-grid operators such as Mlinda have been involved in not only provision of electricity through DRE, but also have built capacity of village economies and rural entrepreneurs to set up rural enterprises powered by the DRE based electricity. Details of the support are provided in the Box below.

Box 6: Mlinda NGO helping increase village GDP through increased economic activity in Ghumla Jharkhand

Mlinda is in the business of setting up DRE based mini-grids in remote rural areas and by 2017 the company had developed about 8 mini-grids in such areas of India. These mini-grids typically operate under the Build Own Operate (BOO) model and a private company has been formulated to provide the electrification services.

Figure 5: Rural Enterprises supported by Mlinda in Ghumla

Along with the private company, Mlinda also functions through an NGO formed as a Trust to help develop the business ecosystem of the villages where the mini-grids have been set up or are proposed to be set up. As part of the ecosystem development, the NGO supports in identifying suitable DRE based rural enterprise; builds capacity of the rural entrepreneur including developing business models and building market linkages for the product. The Trust is grant funded and aims to help the village economy grow by around 10% to 15% on a year-on-year basis. The rural enterprises it has supported in the remote and tribal villages of Ghumla include setting up of an oil expeller unit, rice huller; poultry farms etc. to support develop rural entrepreneurs and economy. All the products manufactured are sold in the market under the name of the NGO. Once the entire model is set up, and the entrepreneur is confident of operating the machine and market linkages, the NGO transfers the equipment to the entrepreneur on a lump sum or a deferred payment basis, depending upon the cost of the equipment.

Mlinda has also set up solar cold storages (cold rooms) in select villages in Ghumla district to help the farmers get better prices for their produce. The cold storage facilities can be availed by paying a monthly rental for the entire room or there is a produce linked charge paid on a per kg per day basis.

Mlinda has set up different institutions to meet its two different business objectives.

3.2.4 Section 8 Company

Section 8 are companies formed for the sole purpose of promoting commerce, art, science, religion, charity or any other useful object. The Company needs to be registered under the Section 8 of Companies Act, 2013. The income earned or profits earned need to be ploughed back to promote objectives of the company only and no other objective. Profits cannot be distributed among the members as dividends.

Following are the essential conditions that need to be met for registering an entity under Section 8:

a. **Minimum 2 shareholders for private limited and minimum 7 shareholders for public limited company**
b. **Minimum 2 Directors (Private Limited) and 3 Directors (Public Limited)**
c. **Important documents to be completed – Memorandum of Association and Articles of Association**

The registering authority is the Registrar of Companies.

An NGO can also be set up as a Section 8 Company. As compared to the other institutional structure, this institutional structure has a comparatively cumbersome process for setting up and hence is not a preferred model.

3.2.5 Private Limited Company

Private Limited Company is one of the most popular institutional setups. A Private Limited Company can earn profit and also distribute dividends to the shareholders. When a DRE operator is venturing into RE based rural enterprises and is managing the financial resources on its own, opening a Private Limited Company is the best option as the profit earned from the venture can be taken out from the project unlike other institutional arrangement narrated before.

Some of the benefits of a Private Limited Separate legal entity: It provides immunity to the owner's personal property or assets in case of bankruptcy. On the company incorporation, it becomes an independent legal entity, meaning it is able to sue or own assets separate from the company owner. It is not affected by the status of its owner i.e. inability to continue or death of the owner does not obstruct the proceedings of the company.

- **Perpetual succession:** One of the benefits of a private limited company registration is to have the freedom to easily add or remove members of the company.

- **Investors:** Investors are attracted to invest in a private limited company as there are less chaos and confusion. This also provides the opportunity to go global with the same name of the firm. Under this arrangement, Foreign Direct Investment is allowed, thus any foreign entity or a person can invest in the company easily.

- **Complete access on whole company:** The Directors are also usually the main shareholders of the Company. Hence both the ownership and control of the business remain in their hands.

- **Tax-Breaks:** Private limited companies also enjoy tax advantages. The private Companies are only taxed on their profits. This gives Private companies tax advantage over sole proprietorship and partnership registration.

For registration of the firm it is advisable to take help of a Chartered Accountant to complete the following process:

A. Step 1: Acquire Digital Signature (DSC)
B. Step 2: Apply for DIN (Director Identification Number)
C. Step 3: Apply for Name Approval
D. Step 4: Form SPICe (INC-32)
E. Step 5: e-MoA(INC-33) and e-AoA (INC-34)
F. Step 6: PAN and TAN Application

It is advisable to visit the website of the Ministry of Corporate Affairs to get more details about opening a Private Limited Company.

http://www.mca.gov.in/MinistryV2/stepstoformanewcompany.html

The table below captures the nuances of all the institutional arrangements that can be considered by the entrepreneurs for RE for productive usage.

Sl. No.	Basis of difference	Trust	Societies	Section 8 Company	Pvt Ltd Company
1	Annual Compliance	There is no requirement of annual return filing	Societies must file annually, with the Registrar of Societies, a list of the names, addresses and occupations of their managing committee members.	There is a requirement of annual compliance by filing of annual accounts and return of company with the RoC	There is a requirement of annual compliance by filing of annual accounts and return of company with the RoC
2	Online filing facility	Online filing facility is not available. Compliances are more complicated & time consuming	Online filing facility is not available. Everything has to be submitted in the office of Registrar of Societies in hard copy. Compliances are more complicated & time consuming.	Online facility is available. The Compliances, like annual filing, appointment & removal of directors, shifting of registered office are required	Online facility is available. The Compliances, like annual filing, appointment & removal of directors, shifting of registered office are required
3	Cost factor	Low	Medium	High	High
4	From the point of view of Grant of subsidy by the government	Less preferred	Less preferred	Most preferred	Preferred
5	From the point of view of Foreign Contribution Regulation Act, (FCRA) registration	Less preferred	Less preferred	Most preferred	Cannot receive foreign contributions/ donations
6	Transparency in Working	Low	Low	High as everything is available online (in case of a public company) Medium (in case of private company)	Medium, only limited information is available in public domain
7	Remuneration to Directors			There is not any restriction in payment of remuneration to an employee/director. But if the E/D is also a member, then no remuneration or other benefit in money or money's worth can be given to him except payment of out of pocket expenses, reasonable and proper interest on money lent, or reasonable and proper rent on premises let to the company	Remuneration is subject to limitations specified in the Companies Act and approval of General Body.

It is suggested that while setting up the rural enterprise, the rural entrepreneur needs to take a reasoned approach to decide the institutional structure taking cognisance of the nuances of the various structures discussed above.

The final task as part of the planning exercise is to make a business plan, which will lay down the long term vision of the rural enterprise and the plan for its implementation. This is discussed in detail in the next Course.

APPENDIX

4. APPENDIX 1

Categorisation of RE productive uses

Table 11: Illustrative list of various productive uses

Productive Activity	NGO as a Trust
Cold Storage	Details
Milking Machine	Refrigeration to preserve agricultural produce
Pump	Machine that helps in milking cows, easing manual labour
Charka (spinning wheel)	Motor pumps to pump water for irrigation. Pumped water may be used for domestic needs but the primary use is irrigation
Knapsack Sprayer	Motorised spinning wheel for threading spindles
Cassava Grater	Power driven sprayers for pesticides
Roti Rolling Machine	Motorised grating of tubular vegetables like cassava, potatoes etc.
Rice Huller	Machine that helps in flattening rotis
Butter Churner	Machine that helps to separate the grains from its shells
Milling Machine	Machine to churn butter, easing manual activity
Sewing Machine	Machine to grind grains, millets to flour; cutting and shaping for metal and wood products
Forge Blower	Motorised sewing machine for stitching, ease manual labour
Photocopy Machine	Forge blowers with an electric motor offer the blacksmith a constant, consistent stream of air to stroke the fire.
Cane Crusher	Electrically powered, photocopy machines scan and provide copies of printed material
Puncture Remover	Motorised machine to crush cane for extracting its juice
Dryer	In assembly line process to remove tyre punctures in automobiles, electricity powers the working of the air compressor
Maize Sheller	Machines using hot air for drying
Weeder	Mechanised systems that help to de-shell maize, otherwise done manually
Seed Sower	Mechanised tool to remove weeds
Poultry	Mechanised agro tool to sow seeds in the field
RO Water	Enclosure to breed poultry
Oil Expeller Unit	Water filtration process through Reverse Osmosis (RO)
Carpentry	Expeller unit to obtain oil from various oil seeds
	Wood related services provided to households and other establishments

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

5. APPENDIX 2

Glossary of some frequently used terms in Finance

1. **Accounting:** Is the process of recording, classifying, summarising, communicating and interpreting the economic events of a business or organisation to interested users.

2. **Accounting payable:** Amounts of money owed to others. These are current liabilities incurred by a company during the normal course of business.

3. **Accounts receivable:** Amounts of money owed to a business by customers who purchase goods or services on credit. On the balance sheet, these are current assets.

4. **Accrual basis accounting:** An accounting method that recognises expenses when incurred and revenue when earned rather than when payment is made or received.

5. **Asset:** Something of monetary value owned by a business or individual

6. **Balance Sheet:** An accounting report that summarises a firm's financial position at a specific date by listing assets, liabilities and owner's equity.

7. **Bonds:** Long-term promissory note or debt instrument issued by public and private institutions.

8. **Break-even:** The point where the level-of-sales is such that, total revenues equal total costs. Break-even analysis serves as a guideline to determine how changes in the volume of sales affect earnings.

9. **Budget:** An estimated amount of expected income and expenses for a specified future period of time. It is a formal financial summary of management plans that allows the communication of previously agreed upon objectives and once approved it is used for evaluating performance.

10. **Budget-forecast-actual:** A comparison between actual results with planned objectives.

11. **Business Cycle:** The regular but recurring periods of change in economic activity over time. It is characterised by periods of expansion, abundance, contraction and recessions.

12. **Business plan:** A formal written strategy that specifies the steps to be undertaken in order to carry out a specific activity and reach the planned objectives of the organisation. It is a document that details the past, present and future of a company usually designed to attract capital investment.

13. **Cash basis accounting:** An accounting method that records revenue when is received and expenses when they are paid.

14. **Cash flow:** The amount of net cash available in a firm as a result of its operations. It is calculated by adding non-cash expenses such as depreciation to net income after taxes and it helps determine a firm's level of liquidity.

15. **Contribution (margin, percentage):** The contribution margin is the amount of revenue remaining after deducting variable costs from total sales. This margin is the amount available to cover fixed costs and to contribute to profit. If you divide the contribution margin by total sales you can obtain the contribution margin ratio. This ratio helps determine the effect of changes in sales on income.

16. **Controller, Comptroller:** An organisations chief accounting officer responsible for the establishment and maintenance of the firm's accounting system.

17. **Corporation:** A business organised as a legal entity separate from its owners, distinguished by having limited liability, easy transfer of ownership and unlimited life.

18. **Cost of goods sold:** The total cost of products sold during a specific period. It is equal to beginning inventory plus cost of goods purchased minus ending inventory.

19. **Credit:** An accounting entry that records a decrease to assets and an increase to liabilities and owner's equity. It is also the ability to borrow or purchase goods and services without having to pay or delivery.

20. **Current ratio:** A liquidity measure that helps determine a company's short-term debt paying ability. It is obtained by dividing current assets by current liabilities.

21. **DBA, doing business as:** Used to signify that a company is operating using a name other than its legally incorporated name.

22. **Debentures:** A long-term unsecured debt instrument. It usually applies to unsecured bonds of a corporation.

23. **Debt (senior, junior):** Words used to prioritise the order in which debt is going to be repaid or claimed in the event of liquidation.

24. **Debt to equity ratio:** It is computed by dividing owner's equity into long term debt and it shows the relationship between long term funds provided by creditors and funds provided by owners.

25. **Due diligence:** Pertains to the process leading up to an investment. Including among other things a review of financial statements, market assessment, economic conditions and management background.

26. **Equity:** In accounting terms is the funds contributed to the firm by stockholders through direct payment or retained earnings. Also known as owner's equity.

27. **Exit strategy:** Is a component of an investment plan that sets forth one or more mechanisms for an investor to liquidate their original investment plus earn a return. Example of exit strategies includes among others, initial public offerings and buyback agreements from other shareholders.

28. **Financial plan:** The process of determining the financing needs of a firm including a strategy for obtaining those funds.

29. **Financial Reporting:** Reports that provide financial statistics relative to an organisation's operations and financial condition.

30. **Grants:** An amount of money that doesn't need to be repaid.

31. **Gross domestic product (GDP):** Total value of goods and services produced by a country (residents and non-residents) per annum.

32. **Gross national product (GNP):** GDP + income residents receive from abroad for labour and investments, less similar payments made to non-resident who contributed to the domestic economy.

33. **Gross profit:** Total sales revenue minus the cost of goods sold. Gross profit does not take into account selling and administrative expenses.

34. **Income statement:** Financial statements that report revenues and expenses and resulting net income or net loss for a specified period of time.

35. **Insolvency:** The inability to meet debt obligations.

36. **Inventory:** The amount of raw materials, work in process and finished goods owned by a company and ready for sale during the course of business.

37. **Investor:** An institution or individual who provides funds to others through risk capital (equity) by purchasing income-producing assets. (E.g. Shares). Someone that puts money into a project or other assets in exchange for income returns or interest.

38. **Lenders:** Institutions or individuals that provide funds (e.g. Loans) with a specified interest rate and repayment period.

39. **Limited liability companies:** A business form that makes its owners responsible for no more capital than they have personally invested in the business. Thus, stockholders only lose the amount paid for the shares of ownership regardless of the firm's financial obligations.

40. **Limited partner:** A member of a limited partnership that enjoys limited liability. He or she is not liable for the debts of the partnership.

41. **Management:** The individuals directing, handling and controlling the affairs of a business.

42. **Market analysis:** A study of the economic environment including among others market structure, size, competition, barriers and growth potential.

43. **Market penetration:** The portion of a particular market that a company has been able to acquire.

44. **Mezzanine debt:** After initial capital is raised for a company there exists a period of time when combinations of debt convertible to equity is a viable tool to finance a company. These debt instruments, which sometimes are accompanied with warrants (an option to purchase stock) and are often convertible to equity, are grouped together under the heading of mezzanine debt, meaning it is between start-up capital and conventional debt. It is also sometimes referred to as quasi-equity.

45. **Net income:** The income that remains after all expenses including taxes have been deducted from revenues. Also called net profit.

46. **Non-compete agreement:** An agreement between parties under which one party promises not to engage in certain business activities in a particular region.

47. **Non-disclosure agreement:** A confidentiality agreement.

48. **Operating costs:** Expenses incurred during the normal course of business with the exception of interest expense, taxes and cost of goods sold.

49. **Partnership:** A business form owned by two or more people who agree to share both, profits and losses.

50. **Payback strategy:** The mechanism to be followed in order to fulfil a firm's corresponding debt obligations.

51. **Per capita GNP:** GNP divided by the country's population total.

52. **Personal guarantee:** A personal pledge, tangible object or formal assurance given as security for a debt obligation.

53. **Preferred shares:** A type of security that shows ownership of a company and has preference over common shares in the payment of dividends and claims of assets.

54. **Projections:** The calculation of future costs, revenues, rates of growth and the like.

55. **Prospectus:** A formal document that discloses information relating to a new securities offering including, information about the issuing company, financial data, proposed business plan, list of its officers, and description of its operations and, any pending litigation.

56. **Quick ratio:** A liquidity measure computed by dividing current liabilities into all current assets with the exception of inventory. It helps determine a company's ability to meet its immediate short-term debt obligations.

57. **Ratios (financial):** A relationship between two or more sets of financial data points with the purpose of tracking the performance of a company.

58. **Return on equity:** It is calculated by dividing owner's equity into net income after taxes and it's a measure of the net income that a firm is able to earn as a percentage of the stockholder's investment.

59. **Return on investment:** It is calculated by dividing total assets into net income after taxes and it measures the firm's effectiveness to generate income from available assets.

60. **Sales:** It represents revenue exclusively from the sale of goods and services.

61. **Soft loans:** A loan with below market rate and terms and even possible forgiveness.

62. **Sole proprietor:** The one and only owner of a business who is, personally liable for all the financial obligations incurred by his or her company.

63. **Stock offering:** a new issue of securities.

64. **Stock, shares (common, preferred):** Securities that show ownership in a corporation and if preferred give the holder a claim prior to the claim of common stockholders on earnings and in the event of liquidation also on assets.

65. **Strategy, tactics:** A plan, method or procedures used to obtain a specific goal or result.

66. **Vision and mission:** The goals and objectives of an organisation.

67. **Working capital:** Is computed by subtracting current liabilities from current assets and it represents the amount of funds a firm needs to cover its current obligations. Thus, it also serves as a measure of liquidity.

6. APPENDIX 3

List of various organisations to be tapped for sourcing funds

6.1 | List of Commercial Banks in India

Sl.No	Name	URL
1.	Allahabad Bank	https://www.allahabadbank.in/
2.	Axis Bank	https://www.axisbank.com/
3.	Bank of Baroda	https://www.bankofbaroda.com/
4.	Bank of India	https://www.bankofindia.co.in/ENGLISH/Home.aspx
5.	Canara Bank	https://www.canarabank.in/
6.	Central Bank of India	https://www.centralbank.net.in/
7.	DENA Bank	https://www.denabank.com/
8.	ICICI Bank	https://www.icicibank.com/
9.	Karnataka Bank	https://karnatakabank.com/
10.	Oriental Bank of Commerce	https://www.obcindia.co.in/
11.	Punjab National Bank	https://www.pnbindia.in/
12.	Ratnakar Bank	https://www.rblbank.com/
13.	State Bank of India	https://www.onlinesbi.com/
14.	Syndicate Bank	https://www.syndicatebank.in/
15.	UCO Bank	https://www.ucobank.com/
16.	Union Bank	https://www.unionbankofindia.co.in/
17.	Industrial Development Bank of India (IDBI)	https://m.idbibank.com/

6.2 | List of Regional Rural Bank

Sl.No	Name	URL
1.	Allahabad UP Gramin Bank	http://www.allahabadgraminbank.in/
2.	Andhra Pradesh Grameena Bank	http://www.apgvbank.in/contact-us.php
3.	Andhra Pragathi Grameena Bank	http://www.apgb.in/
4.	Arunachal Pradesh Rural Bank	http://www.apruralbank.com/
5.	Assam Gramin Vikash Bank	http://www.agvbank.co.in/
6.	Bangiya Gramin Vikash Bank	http://www.bgvb.co.in/
7.	Baroda Gujarat Gramin Bank	http://www.bggb.in/
8.	Baroda Rajasthan Kshetriya Gramin Bank	http://brkgb.com/
9.	Baroda UP Gramin Bank	https://barodagraminbank.com/

10.	Bihar gramin Bank	https://bihargraminbank.in/index.php
11.	Central Madhya Pradesh Gramin Bank	http://www.centralmpgraminbank.com/
12.	Chaitanya Godavari Grameena Bank	https://cggb.in/cggb/
13.	Chattisgarh Rajya Gramin Bank	http://www.cgbank.in/
14.	Dena Gujarat gramin Bank	http://www.dggb.co.in/
15.	Ellaguai Dehati Bank	http://www.edb.org.in/
16.	Gramin Bank of Aryavart	http://www.aryavart-rrb.com/
17.	Himachal Pradesh Gramin Bank	http://himachalgraminbank.org/
18.	J&K Grameen Bank	https://www.jkgb.in/
19.	Jharkhand Gramin Bank	http://jharkhandgraminbank.com/
20.	Karnataka Vikas Grameena Bank	http://www.kvgbank.com/
21.	Kashi Gomti Samyut Gramin Bank	http://www.kgsgbank.co.in/
22.	Kaveri grameena Bank	http://www.kaverigrameenabank.com/
23.	Kerala Gramin Bank	http://www.keralagbank.com/
24.	Langpi Dehangi Rural Bank	http://www.ldrb.org/
25.	Madhyanchal Gramin Bank	http://www.mgbank.co.in/
26.	Madhya Bihar Gramin Bank	https://mbgbpatna.com/
27.	Maharashtra Gramin Bank	http://mahagramin.in/
28.	Malwa Gramin Bank	http://www.malwagraminbank.com/
29.	Manipur Rural Bank	
30.	Meghalaya Rural Bank	http://www.meghalayaruralbank.co.in/
31.	Mizoram Rural Bank	http://www.mizoramruralbank.com/
32.	Nagaland Rural Bank	
33.	Narmada Jhabua Gramin Bank	http://njgb.in/
34.	Odhisha Gramya Bank	http://www.odishabank.in/
35.	Pallavan Grama Bank	http://www.pallavangramabank.in/en/index.html
36.	Pandya grama Bank	http://www.pandyangramabank.in/
37.	Pashim Banga Gramin Bank	https://www.pbgbank.com/
38.	Pragathi Krishna Gramin Bank	http://www.pragathikrishnabank.com/
39.	Prathama Bank	http://www.prathamabank.org/
40.	Puduvai Bharthiar Gram Bank	http://www.puduvaibharathiargramabank.in:81/
41.	Punjab Gramin Bank	https://www.pgbho.com/
42.	Purvanchal Bank	http://www.purvanchalbank.com/
43.	Rajasthan Marudhar Gramin Bank	http://www.rmgb.in/
44.	Saptgiti Grameena Bank	http://www.saptagirigrameenabank.in:82/
45.	Sarva Haryana Gramin Bank	http://www.shgb.co.in/
46.	Sarva UP Gramin Bank	http://upgb.com/
47.	Saurashtra Gramin Bank	http://sgbrrb.org/
48.	Sutlej Gramin Bank	http://www.sgbbathinda.co.in/
49.	Telengana Grameena Bank	http://www.tgbhyd.in/
50.	Tripura Gramin Bank	http://www.tripuragraminbank.org/tgb/new/index.html

51.	Utkal Grameen Bank	http://ugb.co.in/
52.	Uttar Banga Kshetriya Gramin Bank	http://www.ubkgb.org/
53.	Uttarakhand Gramin Bank	http://www.uttarakhandgraminbank.com/
54.	Uttar Bihar Gramin Bank	http://www.ubgb.in/
55.	Vananchal Gramin Bank	http://www.vananchalgraminbank.com/
56.	Vidarbha Konkan Gramin Bank	http://www.vkgb.co.in/

Source: https://financialservices.gov.in/list-rrbs-functioning-country

6.3 List of Non-Banking Financial Corporation (NBFCs)

Sl.No	Name	URL
1.	Aditya Birla NBFC	http://adityabirla.com/businesses/Profile/aditya-birla-finance-limited
2.	Bajaj Finance	https://www.bajajfinserv.in/
3.	India Infrastructure Finance Company (IIFC)	http://www.iifcl.co.in/
4.	Indostar	https://www.indostarcapital.com/
5.	PTC India Financial Services (PFS)	https://www.ptcfinancial.com/
6.	Reliance Capital	http://www.reliancecapital.co.in/
7.	L&T Infra Finance	http://www.ltfs.com/companies/lt-infra-finance.html
8.	Mahindra Finance	https://www.mahindrafinance.com/
9.	Power Finance Corporation Ltd.	http://www.pfcindia.com/Home/VS/102
10.	Srei Infrastructure Finance Ltd.	https://www.srei.com/
11.	Tata Cleantech Capital Ltd.	http://www.tatacleantechcapital.in/
12.	National Bank For Agriculture & Rural Development	https://www.nabard.org/
13.	Industrial Finance Corporation India	https://www.ifciltd.com/
14.	Indian Renewable Energy Development Agency Limited	http://ireda.in/
15.	Small Industries Development Bank of India	http://www.sidbi.in/

6.4 List of International Development Financial Institutions (DFIs)

Sl.No	Name	Acronym	Website
1.	Asian Development Bank	ADB	https://www.adb.org/
2.	Agence Francaise de Development	AFD	http://delhi.afindia.org/
3.	Department for International Development Government of United Kingdom	DFID	https://www.gov.uk/government/organisations/department-for-international-development
4.	International Finance Corporation	IFC	https://www.ifc.org/

5.	Japan International Cooperation Agency	JICA	https://www.jica.go.jp/english/
6.	Kreditanstalt für Wiederaufbau	KfW	https://www.kfw.de/KfW-Group/
7.	National Indian Brotherhood Trust Fund	NIB	http://nibtrust.ca/
8.	Norwegian Agency For Development Cooperation	Norad	https://norad.no/en/front/
9.	United Nations Development Programme	UNDP	http://www.undp.org/content/undp/en/home.html
10.	Global Environment Facility	GEF	https://www.thegef.org/about-us
11.	Abu Dhabi Fund for Development	ADFD	https://www.adfd.ae/english/Pages/Home.aspx
12.	International Renewable Energy Agency	IRENA	https://www.irena.org/
13.	Indian Renewable Energy Development Agency Ltd.	IREDA	http://ireda.in/
14.	United Nations Entity for Gender Equality and Empowerment of Women	UN WOMEN	http://www.unwomen.org/en
15.	United Nations Industrial Development Organization	UNIDO	https://www.unido.org/
16.	United Nations Environment Programme	UNEP	http://web.unep.org/
17.	United States Agency For International AID	US AID	https://www.usaid.gov/

6.5 List of Crowdfunding Websites

S.No.	Crowdfunding Model	Specialisation	URL
1.	P2P Lending	Social; Environmental; Entrepreneurship	https://www.micrograam.com
2.	P2P Lending	Social; Environmental; Entrepreneurship; Energy Access	https://www.rangde.org
3.	P2P Lending	Social; Environmental; Entrepreneurship; Energy Access	https://www.milaap.org
4.	P2P Lending	Energy Access	https://www.lytyfy.org
5.	P2P Lending	Creative; Entrepreneurship	http://www.igniteintent.com
6.	Donation	Social; Entrepreneurship; Creative	http://www.funddreamsindia.com
7.	P2P Lending	Commercial	https://www.faircent.com
8.	Quasi-Equity	Commercial; Energy	http://www.loans4sme.com
9.	P2P Lending	Commercial	https://www.monexo.co/in/
10.	P2P Lending	Commercial	https://www.loanmeet.com
11.	P2P Lending	Commercial	https://www.i2ifunding.com
12.	P2P Lending	Commercial	http://www.finmomenta.com
13.	P2P Lending	Commercial	https://www.lendbox.in
14.	P2P Lending	Commercial	http://www.opentap.in
15.	P2P Lending	Commercial	https://www.rupaiyaexchange.com
16.	P2P Lending	Commercial	https://www.indiamoneymart.com
17.	P2P Lending	Commercial	https://www.anytimeloan.in
18.	P2P Lending	Commercial	http://www.smecashloans.in

19.	Reward	Creative	https://www.wishberry.in
20.	Reward	Creative; Social; Entrepreneurship	https://www.catapooolt.com
21.	Reward	Creative	http://www.start51.com
22.	Reward	Creative; Social; Entrepreneurship	http://www.pikaventure.com
23.	Donation; Reward	Social; Environmental; Entrepreneurship; Creative	https://www.ketto.org
24.	Donation	Social; Entrepreneurship; Creative	https://www.impactguru.com
25.	Donation; Reward	Creative; Entrepreneurship; Social; Environment, Energy Access	https://www.bitgiving.com
26.	Reward	Social; Creative; Entrepreneurship; Environment; Energy; Energy Access	https://www.gocrowdera.com
27.	Donation	Social; Environment	http://www.giveindia.org
28.	Quasi-Equity	Entrepreneurship	https://www.letsventure.com
29.	Quasi-Equity	Entrepreneurship	http://www.grex.in
30.	Quasi-Equity	Entrepreneurship	https://www.1crowd.co
31.	Quasi-Equity	Entrepreneurship	http://www.venturecatalysts.in

6.6 | List of Private Equity Funds

S.No.	Name	Type of investment	Website
1.	Aavishkar Group	Entrepreneurship	http://www.aavishkarsolartechnologies.com/
2.	Accelerator First Light	Business Development, Entrepreneurship	http://www.twenty19.com/first-light-accelerator
3.	Actis	Business Development, Entrepreneurship	https://www.act.is/
4.	Acumen	Social, Entrepreneurship	https://acumen.org/india/
5.	Aloe Environment Fund III	Environmental Entrepreneurship	https://www.aloe-group.com/en/
6.	Berkley Partners LLP	Light Industries	http://www.berkeleypartners.com/#berkeley-partners
7.	Bessemer Venture Partners	Start-up funding	https://www.bvp.com/about
8.	Elevar Equity	Social Entrepreneurship	https://www.elevarequity.com/
9.	GEF Management Corp.	Environmental and social entrepreneurship	http://www.globalenvironmentfund.com/
10.	Grassroots Business Fund	Social Entrepreneurship	http://www.gbfund.org/
11.	Gray Ghost Ventures	Social entrepreneurship	http://www.grayghostventures.com/about/history.html
12.	Middle East & Asia Capital Partners Clean Energy Fund -II	Energy and Environment	https://www.opic.gov/sites/default/files/docs/middle_east_and_asia_capital_partners_clean_energy_fund_II_nc.pdf
13.	Ncubate Capital	Capacity building and skill development	http://www.ncubatecapital.com/
14.	Neurus capital	Energy, Infrastructure	http://nereuscp.com/index.html
15.	North Sky Capital	Energy, Infrastructure	https://northskycapital.com/
16.	Olympus Capital Asia	Commercial	http://www.olympuscap.com/
17.	Schneider Venture Capital	Infrastructure	www.schneidercap.com

18.	Willow Impact Investors	Small and Medium Enterprise	http://www.willowimpact.com/
19.	Wolfensohn Capital Partners	Emerging Markets	http://encouragecapital.com/portfolio
20.	Infuse Ventures	Clean Technology	http://www.infuseventures.in/#about
21.	Insitor Fund	Start Up	http://www.insitorimpactasiafund.com/
22.	Mahindra Partners	Renewable Energy	www.mahindrapartners.com

6.7 List of Global Foundations/Agencies

Sl.No	Name	URL
1.	Aga Khan Foundation	https://www.akdn.org/our-agencies/aga-khan-foundation
2.	Calvert Foundation	http://woodcockfdn.org/calvert-foundation
3.	Citi Foundation	https://www.citigroup.com/citi/foundation/
4.	Climate Works Foundation	https://www.climateworks.org/
5.	Rockefeller Foundation	https://www.rockefellerfoundation.org/
6.	Shell Foundation	https://shellfoundation.org/
7.	Hewlett Foundation	https://hewlett.org/
8.	The Nand & Jeet Khemka Foundation	http://www.khemkafoundation.in/
9.	Lemelson Foundation	https://www.lemelson.org/
10.	Rockefeller Brothers Fund	https://www.rbf.org/

Source: Financing Decentralised Renewable Energy Mini-Grids in India, Opportunities, Gaps and Directions (September 2013)

7. APPENDIX 4

Form for applying for a Mudra Loan

Bank's Logo

LOAN APPLICATION FORMPRADHAN MANTRI MUDRA YOJANA
(To be submitted along with documents as per the check list)

A. For office Use:

EnterpriseName	Application Sl. No.	Name of the Branch	Category
			Shishu/Kishor/Tarun

B.Business Information:

Name of the Enterprise						
Constitution	√	Proprietary	Partnership	Pvt. Ltd.	Ltd. Company	Any Others (specify)
Current Business Address						
	State		PIN Code			
	Business Premises		√	Rented	Owned	
Telephone No.		Mobile No.	91			
E-mail:						
Business Activity	Existing					
	Proposed					
Date of Commencement(DD/MM/YYYY)						
Whether the Unit is Registered	√	Yes		No		
If Registered (Please mention:Registration no. And the Act under which registered)						
Registered office Address						
Social Category	√	SC	ST	OBC	Minority Community	
If Minority Community	√	Buddhists	Muslims	Christians	Sikhs	Jains	Zoroastrians

C.Background Information of Proprietor/ Partners/ Directors:

S.No	Name	Date of Birth	Sex	Residential Address with Mobile No.	Academic Qualification	Experience in the line of activity (Years)
1.						
2.						

S.No	Id proof	Id proof no.	Address proof	Address proof no.	PAN Card/DIN No.	Relationship with the officials/ Director of the bank if any
1.						
2.						

D. Names of Associate Concerns and Nature of Association:

Names of Associate Concern	Address of Associate Concern	Presently Banking with	Nature of Association Concern	Extent of Interest as a Prop./Partner/ Director or Just Investor in Associate Concern

E. Banking/Credit Facilities Existing: (In Rs.)

Type of Facilities	Presently Banking with	Limit Availed	Outstanding As on ……	Security lodged	Asset classification status
Savings Account		N. A.		N. A.	
Current Account		N. A.		N. A.	
Cash Credit					
Term Loan					
LC/BG					
If banking with this bank, customer ID to be given here:					
It is certified that our unit has not availed any loan from any other Bank / Financial Institution in the past and I/we am/are not indebted to any other Bank / Financial Institution other than those mentioned in column no. E above.					

F. Credit Facilities Proposed:(In Rs.)

Type of Facilities	Amount	Purpose for which Required	Details of Primary Security Offered (with approx. value to be mentioned)
Cash Credit			
Term Loan			
LC/BG			
Total			

G.In case of Working Capital: Basis of CashCredit Limit applied:(In Rs.)

Actual Sales		Projected						
FY-	FY-	Sales	Working Cycle in Months	Inventory	Debtors	Creditors	Promoter's Contribution	Limits

H. In case of Term loan requirements, the details of machinery/equipment may be given as under:

Type of machine / Equipment	Purpose for which required	Name of Supplier	Total Cost of Machine	Contribution being made by the promoters(Rs.)	Loan Required (Rs.)
		Total			

Repayment period with Moratorium period requested for	

I. Past Performance / Future Estimates: (In Rs.)

Past Performance / Future Estimates (Actual performance for two previous years, estimates for current year and projections for next year to be provided for working capital facilities. However for term loan facilities projections to be provided till the proposed year of repayment of loan)				
	Past Year-II (Actual)	Past Year-I (Actual)	Present Year (Estimate)	Next Year (Projection)
Net Sales				
Net Profit				
Capital (Net Worth in case of Companies)				

J. Status Regarding Statutory Obligations:

Statutory Obligations	Whether Complied with (select Yes/No) If not applicable then select N. A.	Remarks (Any details in connection withthe relevant obligation to be given)
1. Registration under Shops and Establishment Act		
2. Registration under MSME (Provisional /Final)		
3. Drug License		
4. Latest Sales Tax Return Filed		
5.Latest Income Tax Returns Filed		
6.Any other Statutory dues remaining outstanding		

K. Declaration:

I/We hereby certify that all information furnished by me/us is true, correct and complete. I/We have no borrowing arrangements for the unit except as indicated in the application form. There is/are no overdue / statutory dueowed by me/us. I/We shall furnish all other information that may be required by Bank in connection with my/our application. The information may also be exchanged by you with any agency you may deem fit. You, your representatives or Reserve Bank of India or Mudra Ltd., or any other agency as authorised by you, may at any time, inspect/ verify my/our assets, books of accounts etc. in our factory/business premises as given above. You may take appropriate safeguards/action for recovery of bank's dues.

Space for Photo	**Space for Photo**	**Space for Photo**
(Signatures of Proprietor/partner/ director whose photo is affixed above)		

CHECK LIST: (The check list is only indicative and not exhaustive and depending upon the local requirements at different places addition could be made as per necessity)

1) Proof of identity - Self certified copy of Voter's ID card / Driving License / PAN Card / Aadhar Card/Passport.
2) Proof of Residence - Recent telephone bill, electricity bill, property tax receipt (not older than 2 months), Voter's ID card, Aadhar Card & Passport of Proprietor/Partners/Directors.
3) Proof of SC/ST/OBC/Minority.
4) Proof of Identity/Address of the Business Enterprise -Copies of relevant licenses/registration certificates/other documents pertaining to the ownership, identity and address of business unit.
5) Applicant should not be defaulter in any Bank/Financial institution.
6) Statement of accounts (for the last six months), from the existing banker, if any.
7) Last two years balance sheets of the units along with income tax/sales tax return etc. (Applicable for all cases from Rs.2 Lacs and above).
8) Projected balance sheets for one year in case of working capital limits and for the period of the loan in case of term loan (Applicable for all cases from Rs.2 Lacs and above).
9) Sales achieved during the current financial year up to the date of submission of application.
10) Project report (for the proposed project) containing details of technical & economic viability.
11) Memorandum and articles of association of the company/Partnership Deed of Partners etc.
12) In absence of third party guarantee, Asset & Liability statement from the borrower including Directors& Partners may be sought to know the net-worth.
13) Photos (two copies) of Proprietor/ Partners/ Directors.

Acknowledgement Slip for loan Application under PradhanMantri MUDRA Yojana

Office Copy:

Application (system generated/manual) Number		Date of Application	
Name of the Applicant(s)		Loan Amt. Requested for	
Signature of Applicant(s)		Signature of Branch official	

Acknowledgement Slip for loan Application under PradhanMantri MUDRA Yojana

Applicants Copy:

Application (system generated/manual) Number		Date of Application	
Name of the Applicant(s)		Loan Amt. Requested for	

8. APPENDIX 5

Risks faced by a rural enterprise and its mitigation strategies

Table 12: Risks faced by a rural enterprise and their mitigation strategies

Risk	Illustrations of the risk	Mitigation options
Product and Technology	• Products are not of good quality and there are complains of break down and requirement of after-sales service • New technologies are developed and clients feel dissatisfied with energy product provided to them • After-sales support and services not adequate • Reliability of design, installation and maintenance of energy products may be problem areas for DRE enterprises and the customers	• Revisit existing partnership arrangements immediately following the pilot to focus closely on after-sales service provisions. • Agreement to include buffer stock arrangement for servicing replacement guarantee • If necessary build linkages with other energy companies that offer stronger maintenance and after-sales services • In some situations collaborating with an insurance company to cover the technical risk provides the best coverage • Research and development
Management & Governance Risks	• Board/investors/lenders/senior management is not fully committed or not have consensus on the road map of energy lending program. • Energy lead leaves	• Awareness, education, exposure trips, client visits, visioning sessions with all relevant stakeholders to develop agreed upon plan of action and business plan. • Timely reporting and feedback sessions to develop confidence among all stakeholders.
Operational Risks	• Inventory management • Client declining the order at the time of delivery of the products • Information flow, reporting template, structure and process are not designed carefully and therefore difficult to track status of the program.	• Detailed energy program manual with carefully documented processes, structure, roles and responsibilities, approval mechanism, training and audit functions and information flow. • Monitoring, audit and feedback loops are in place.
Human Resources	• Staff inability to market energy products • Lack of internal organisational capacity and incentives to market RE products and recommend the appropriate product to clients.	• Staff training on sales, marketing and product features. Follow up with refresher training • Designing incentives in consultation with staff early iterations in order to settle on appropriate incentive structure • Develop talent pool for turn over related issues
Client Related Risks	• Clients are not using products properly or not using products at all • Clients have misplaced expectations about product performance and after-sales support • Clients do not know how to register for and use after-sales services	• Emphasis on right set of sales strategies • Adequate and effective communication material on product features, after sales support and ensuring that the client acknowledges these before purchase • Audit of sales processes and satisfaction surveys • High quality client assessment, solid loan tracking and monitoring systems and strong and sound credit management policies.

Financial Risk	• Lack of innovative financing and financier capacity building • Need for low-cost capital (capital investment and working capital) and need for credit from suppliers • For the end user need for low-cost finance and collateral free loans • Cash flow management between streams of cash inflows (advance payment from clients, loan repayment, processing fees, cash sales proceed) and cash outflow • Financial institutions other than bank have a higher rate of interest.	• Design and maintain a cash flow management system • Working capital financing in place • Currency hedging • Proper review and adherence with policy and regulations
Policy & Regulatory Environmental Risks	• Sudden change in the central government policies • Lack of clarity on the subsidy application and approval process	• Understand regulatory landscape and design innovative models, if possible, for energy lending programs example energy subsidiary company model, product company invoicing client directly • Advances should be taken from clients

Source: CLEAN Energy Access Network; 'Training Manual on Financial Literacy for Decentralised Renewable Energy Enterprises'; Prepared by Friends of Women's World Banking, India (FWWB); October 2018

Resource Partners and Founding Members

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