Hon. Balasaheb Thackeray Agribusiness and Rural Transformation (SMART)Project

# Full Project Proposal (FPP)

(Template)

**Sub-Project Title:** ***Productive Partnership for Rice Value Chain (Fully Automatic Rice Mill Plant)***

## Submitted by

**Gurudeo Agriculture Farmers Producer Company Limited,**

**Community Based Organization (CBO),**

**Block- Ramtek District- Nagpur**

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# Section 1- Preliminary information of CBO

### 1.1 General information

| | | |
|---|---|---|
| 1. | Name of the Community Based Organization (CBO) | **Gurudeo Agriculture Farmers Producer Company LTD. Ramtek, Nagpur** |
| 2. | Address | **Ward No. 3, Masla,Tah.Ramtek, Dist.Nagpur** |
| 3. | Details of the contact person | Name: Sagar Londhe<br>Designation in CBO: Director<br>Mobile Number: 9860285010<br>Email: |

### 1.2 About registration of organization

| | | |
|---|---|---|
| 1. | Organization type (please mark (√) on appropriate option) | Farmer Production Company (FPC) |
| 2. | Whether organization is registered? | Yes |
| 2.1 | If yes, under which act | Companies Act 2013 |
| 2.2 | Year of registration and registration number | Registration year: 18/04/2016<br>Registration number: UMH01100MH2016PTC280002 |
| 3. | PAN number of the organization | AAGCG5262R |
| 4. | Udyog Aadhar number / Udyam registration No. of the organization | MH20-0065821 |
| 5. | Authorized Capital of organization (Rs. In Lakhs) | 10,00,000/- |
| 6. | Paid up capital of organization (Rs. In Lakhs) | 10,00,000/- |

### 1.3 Details of Board Members

| No. | Name of the BoD | Gender M/F | Social category | Land Holding (Ha) | Designation | Education | PAN No. | Aadhar No. | Contact number (mobile number) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Sagar Lodhe | M | SC | 0.92 | Director | 12th | AFDPL4899Q | 775817511831 | 9860285010 |
| 2 | Baldev Kumbhre | M | ST | 0.84 | Director | 12th | CWIPK7659C | 624965415513 | 8600856423 |
| 3 | Moreshwar Hinge | M | OBC | 2.00 | Director | 12th | ADRPH8074P | 623880925889 | 9890475069 |
| 4 | Bhushan Mankar | M | OBC | - | Director | ME Diploma | BVXPM8195D | 202997204667 | 7972738199 |
| 5 | Mona Barve | F | SC | - | Director | PG Chemestry | EZDPB0052D | 723241332279 | 8698352392 |

**1.4 Details of trainings in which BoD members were participated as trainee**

| No. | Name of the training | Duration (days) | Name of organizing agency | Topics covered | Name of members participated in training |
|---|---|---|---|---|---|
| 1 | Producation Planning | 10 | Regional Agriculture Extension management training institute | Increase in Productivity | Sagar Lodhe |

**1.5 Details of shareholders / members of CBOs**

| Total No. of shareholders | Female | Male | Scheduled Castes | Scheduled Tribes | Marginal Farmers (0-1 ha) | Small farmers (1-2 ha) | Medium farmer (2-5 ha.) | Big farmers (More than 5 ha.) | Tenants | landless |
|---|---|---|---|---|---|---|---|---|---|---|
| 910 | 347 | 563 | 114 | 129 | 392 | 270 | 129 | 97 | 0 | 22 |

**1.6 Details of other participating CBOs if any (If there is more than one promoter agency (CBO), then provide details of other agencies in following table)**

| No. | Name of agency | Address | Name of contact person | Contact no. | Total number of members / shareholders |
|---|---|---|---|---|---|
| Not Applicable, as only one promoter agency (CBO) | | | | | |

**1.7 Details of movable and immovable property owned by the organization**

| SN | Types of assets | Unit | Total units | Present market value per unit (Rs.) | Total market value (Rs.) |
|---|---|---|---|---|---|
| **A** | **Immoveable Assets** | | | | |
| | **Total (A)** | **-** | **-** | **-** | **-** |
| **B** | **Moveable asset** | | | | |
| | **Total (B)** | **-** | **-** | **-** | **-** |
| | **Gross total (A+B)** | **-** | **-** | **-** | **-** |
| | | | | | |

**Note:** provide details of assets owned by organisation such as. Land , building , agri. produce collection centre , cleaning and grading machinery , Processing related machineries, other available machinery and equipment if any, warehouse , cold storage, vehicle , furniture , IT related infrastructure such as computer, printer etc.

### 1.8 Details of licenses obtained by CBO(DML, Udyog Aadhar / Udyam registration , shop act and other licenses)

| SN | Name of license | Issuing agency/department | License no and date of issuing | Validity1(duration) |
|---|---|---|---|---|
| 1 | Fertilizer & Pesticides | Applied | Applied | Applied |
| 2 | Udyog Adhar | MSME | MH20-0065821 12/01/2022 | - |

### 1.9 Details of ongoing business activity of CBO along with snapshot on farmers participation (year 2019-20 to 2020-21)

| Sr. No. | Name of business activity | Number of participated members | |
|---|---|---|---|
| | | Members of CBO | Non-member |
| **A** | **Aggregation and bulk marketing of agri. / Horti commodities** | | |
| 1 | *Paddy* | 300 | 100 |
| 2 | *Wheat* | 20 | 10 |
| **B** | **Primary processing (+ Secondary Processing) on agricultural commodities (cleaning and grading)** | | |
| **1** | *Not Applicable* | | |
| **C** | **Bulk procurement and selling of agricultural inputs (Fertilizer, seeds etc.)** | | |
| **1** | *Not Applicable* | | |
| **D** | **Seed production** | | |
| 1 | *Not Applicable* | | |
| **E** | **Others (e.g. processing, direct marketing, custom hiring center etc.)** | | |
| **1** | *Not Applicable* | | |

### 1.10 Annual turnover of CBO ( last three years)

| Details | Year- 2018-19 | Year- 2019-20 | Year- 2020-21 |
|---|---|---|---|
| **Annual turnover (In Rs.)** | 2,65,650 | 5,20,690 | 7,02,500 |

**Note:** -Annual turnover is as per the audit reports of the CBO –

# Section 2 – About selected Crops, marketable surplus and its value chain

**2.1 Details of major crops selected for sub-project and its marketing status (average of last three years)**

| No. | Crop | CBO members Area under particular crop (Ha.) | Average productivity (tons per Ha.) | Total Production (tons) | Marketable surplus (tons) | Quantity of produce Aggregated and sold by CBO (tons) | Quantity of produce sold by member at individual level (tons) |
|---|---|---|---|---|---|---|---|
| 1 | Paddy | 2014 | 2.5 | 5034 | 3500 | 500 | 3000 |
| 2 | Wheat | 475 | 4 | 1900 | 1300 | 50 | 1250 |

**Notes:**

1. The above data is **only of members.** Under the existing operations, the company receives paddy from several non-members as well.
2. The CBO also shares business leads with its FGs to directly sell their paddy/rice to buyers.
3. The current network of CBO also includes around 2000 non-member farmers. These users support the CBOs plan of implementing the proposed rice mill and have expressed willingness to use Job-work services as well supply paddy for CBO's captive operations.

2.1.1 **Details of agro produce aggregated and sold by CBO (Average of last three years)**

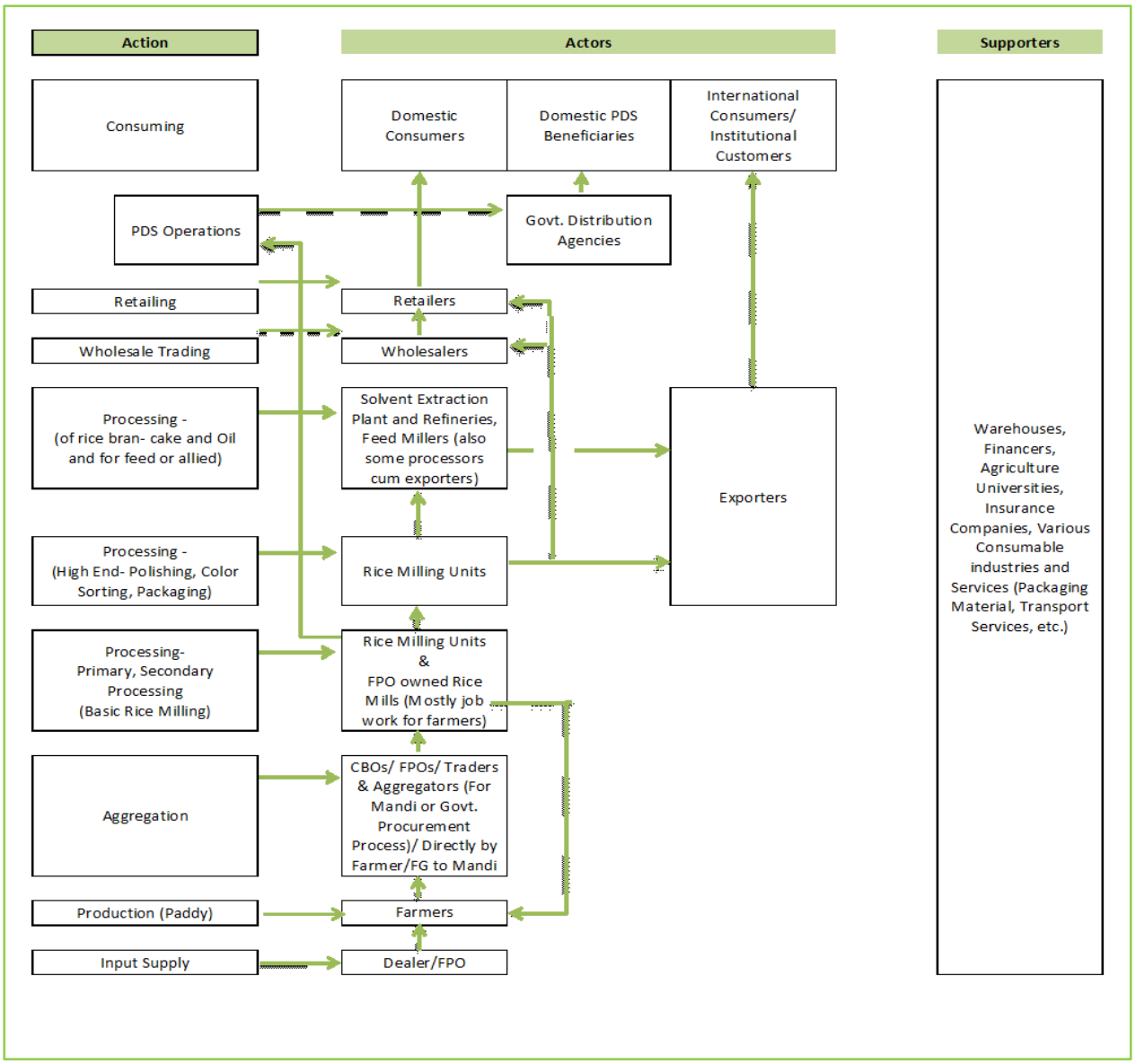
| No. | Buyer | Agriculture Commodity ( quantity in MT ) |
|---|---|---|
| **1** | **Processor** | 50 |
| **2** | **Exporter** | |
| **3** | **Organized Retail Chain** | |
| **4** | **Direct marketing License (DML)holder, Traders** | 500 |
| **5** | **Other .....specify** | |

## 2.2 Existing value chain of key crops

A **'value chain'** in agriculture identifies the set of actors and activities that bring a basic agricultural product from production in the field to final consumption, where at each stage value is added to the product.

2.2.1 **Value chain of the selected crop (key chain) along with percentage of the marketable surplus is sold?**(Please refer annex for knowing how to write value chain.)

To understand the current paddy/ rice value chain of the project's cluster, it is important to understand the various marketing channels and actors and how paddy (and milled rice & by-products) move from the cluster actors to final consumers. The chart below highlights the same:




**Current Value Chain**

In the Current Value Chain, the CBO, post-harvest, the CBO has been aggregating the produce (paddy) from member and non-member farmers and assisting in market facilitation (i.e. sale of paddy). Since, the CBO does not own its own rice milling unit, it sells the aggregated produce to several stakeholders and charges sales facilitation. The CBO sometimes also gets the paddy milled in nearby mini rice mills and collects job-work and facilitation charges. The farmers/FGs then sell the produce directly to customers [traders (of rice, bran, husk and broken), re-processors (who further process for premium quality rice)]. The CBO also often shares business leads with the farmers/FGs.

In this context, the CBO did a proper study and came to conclusion that most mini rice mills in the region (including some of which are owned by other CBOs) process only intermediate product; i.e. un-polished and non-color sorted rice. It is also evident that while the rice processed by mini rice mills is cheaper it is also not preferred by premium market consumers. Thus much of the rice processed in mini rice mills is either consumed at village level or alternatively moves to a privately owned re-processing plant where it is polished, graded, color-sorted and packed in bags (generally brands). Hereon, it is sold to premium markets. This remains the key reason why mini rice mills are not moving up in the value chain and their margins are limited.

Notably, polishing activity leads to further enhancement of rice aesthetics (making it pearl white) and that of length grading helps in getting better rates based on segregates like head rice, large broken, medium and small broken. At the same time, rice may be further color sorted to segregate homogenous colored head rice and broken and segregate the off colors as reject, which further assists in pricing products at least 2-3 Rs. Per kg higher, allowing higher margins to processing units.

Having understood this and with a plan to counter the technology gaps in their existing operations, the CBO undertook the activity of understanding the required capital investment and understanding the operational economics of same. They found that their operations and market access is highly enhanced by adopting a full-fledged rice mill.

**Having understood this dynamics, the CBO consulted the productive partner as well and took a call they should target such end-to-end rice mill as the logical expansion to their existing aggregation activities.**

In lack of these machines, the CBO/even farmers are currently unable to directly market their produce to high-end institutional buyers like traders, exporters, premium retail buyers and even undertake direct branded products. This, obviously, limits the level of profits of both CBO and farmers.
The CBO, through the proposed project, aims to set-up an end-end-end finished rice mill unit (i.e. with polishing, grading, color sorting), so it can supply the products to productive partner as well as to other high-end buyers and even target direct consumers (through own brand).

### 2.2.2 Challenges in existing value chain of selected crops

- Unavailability of paddy processing infrastructure, including high-end machines like polishing, length grading, color sorting and packaging facilities.
- Currently selling paddy directly to brokers, mandi and other institutional buyers, and thus unable to realize the price and profits which can be otherwise gained through selling milled products.
- Relatively low experience in marketing higher value added products.

### 2.2.3 Potential remedies to address above issues in value chain

- Deploying of end-to-end rice milling unit including high value adding machinery like whitening, polishing, length grading, color sorting and packaging technology will facilitate in production of premium quality and thus greater price and profit realization to CBO and its members. The deployment will also assist in higher yield of bran, production of properly length graded and ‘pearl white’ and color sorted rice – all

leading to making CBO products highly marketable to institutional and premium segment buyers.

- Standardized packaging and branding of product will assist in attracting new buyers and even targeting direct consumers.

**2.3 Whether the CBO has conducted market survey for mapping potential buyers / market? Yes/No**

Yes. As mentioned in report earlier, the CBO has conducted extensive research and has also learned several aspects about rice and by-products trade by speaking to several stakeholders and potential buyers. The CBO in its research spoke with several stakeholder buyers- which included several premium segment buyers (traders, exporters, wholesalers, large retailers, etc.) who gave inputs regarding the desired quality standards. It was clearly established through this market analysis that while the rice varieties produced by the cluster farmers are highly desired, it is absolutely important that the end products meet the specifications such as highly whitened-polished rice, proper length grading and even color sorting and packaging.

In this context, the CBO did a proper study and came to conclusion that most mini rice mills in the region (including some of which are owned by other CBOs) process only intermediate product; i.e. un-polished and non-color sorted rice. It is also evident that while the rice processed by mini rice mills is cheaper it is also not preferred by premium market consumers. Thus much of the rice processed in mini rice mills is either consumed at village level or alternatively moves to a privately owned re-processing plant where it is polished, graded, color-sorted and packed in bags (generally brands). Hereon, it is sold to premium markets. This remains the key reason why mini rice mills are not moving up in the value chain and their margins are limited.

Notably, polishing activity leads to further enhancement of rice aesthetics (making it pearl white) and that of length grading helps in getting better rates based on segregates like head rice, large broken, medium and small broken. At the same time, rice may be further color sorted to segregate homogenous colored head rice and broken and segregate the off colors as reject, which further assists in pricing products at least 2-3 Rs. Per kg higher, allowing higher margins to processing units.

The CBO also researched on the appropriate capacity of rice mill that should be set-up. On interacting with various machine suppliers and existing rice millers, it was apparent that 1 TPH Rice Mill is not generally set-up because of extremely low viability. The minimum economically viable capacity is in the range of 2-4 TPH. It was also apparent in the research that most of the small to medium rice mills operate with capacities ranging with 4 TPH to 12 TPH capacities. Apparently, an optimum 3-4 TPH size ensures that the plant is able to generate economies of scale and thus provide sufficient margin to operating entity. A minimum 3-4 TPH size also allows unit operators to procure large job-work orders, which lower capacity mills are generally not offered to.

Having understood this and with a plan to counter the technology gaps in their existing operations, the CBO undertook the activity of understanding the required capital investment and understanding the operational economics of same. They found that their operations and market access is highly enhanced by adopting a full-fledged rice mill.

**Having understood this dynamics, the CBO consulted the productive partner as well and took a call they should target such end-to-end rice mill as the logical expansion to their existing aggregation activities.**

### 2.3.1 Details of potential buyers/markets identified through survey

| No. | Name of buyer/market | Address | Contact person and its No. | E-mail Id | Agri. / Horti. Produce |
|---|---|---|---|---|---|
| 1 | Deshmukh Rice Mill | Rajoli | Saraswati Deshmukh 9420954507 | - | Agriculture |

## Section 3: About proposed Sub -project

1. **Name of the proposed sub project**: Gurudeo Agriculture Farmers Producer Company Ltd.

2. **Type of sub project**(please mark (√) on appropriate option)

   2.1 Sub project - Productive Partnership (PP)

3. **Proposed objectives of the sub project :**
   - Production of high value added rice – including by polishing, length grading, color sorting and packing the rice products to get higher price and profit realization in the market
   - Gain access to high-end premium rice markets, buyers and consumers – including even export markets
   - Improving the average income of members of the CBO and its members
   - Harvesting, procurement, grading, pooling, handling, marketing, selling, export of produce/products of members for their benefit.
   - Rendering technical services, consultancy services, training, education, research and development and all other activities for the promotion of the interests of its members.

4. **About sub-project location:**
   Proposed unit is located adjacent to State highway No. 253 which is connected with motorable operating road, Villege Masla Tah Ramtek

5. **No. of Villages covered under sub project –** 15

6. **Details of existing infrastructure available for the proposed sub-project**

| No. | Particulars | Details |
|---|---|---|
| 1 | Location of sub-Project | 1. Village : Masla<br>2. Grampanchayat :- Masla<br>3. Block : Ramtek<br>4. District: Nagpur<br>5. State: Maharashtra |
| 2 | Latitude and Longitude of the village | Longitude 79.31205 "N Latitude 21.366543 "E |
| 3 | Total required land for establishing | 0.50 Acre |

| | | |
|---|---|---|
| | proposed sub project | |
| 4 | Whether the land owned by organization | No (leased) |
| 5 | a. Is the land is on lease basis ;<br>If yes; then its details<br><br><br><br><br>b. Social Category of the land owner<br><br>c. Whether the land is encroachment free | Yes<br>Survey no/ Gat No-- 26/1<br>Tenure of agreement –29 years<br>Date of agreement : 13/12/2021<br>Longitude 79.31205 "N Latitude 21.366543 "E<br><br>OBC<br><br>Yes√ |
| | Proposed land use | Industrial use √ |
| 6 | Details of facilities available at identified site | |
| 6.1 | Whether electricity supply is available | The CBO applied for power sanction limit of 200KVA to support the proposed plan.<br><br>**Name of connection holder -** Gurudeo Farmer Producer Company Limited (CBO)<br><br>Type of power connection: Three phase √ |
| 6.2 | Whether water is require for running proposed sub project? | Yes<br>Detail of facilities- Bore-well<br>Water is available for round the year. |
| 6.3 | Status of road connectivity at selected plot | Road connectivity - Yes<br>Operating Road (in good motor-able condition)<br>Connected to state highway No 253 |

## 7. Agri. / Horti. Produce aggregation plan of CBO for next five years

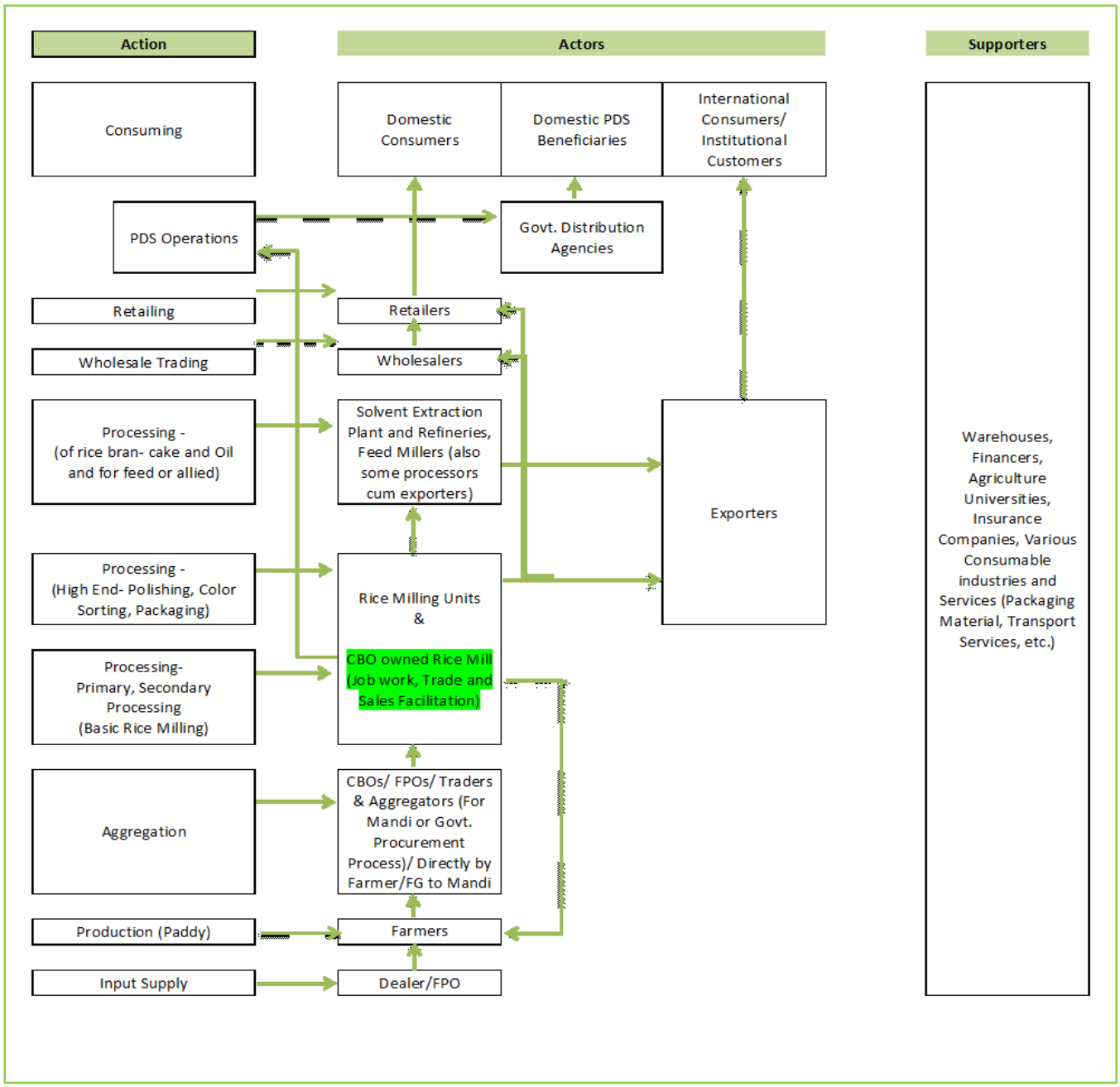
| No | Name of commodity | Annual Quantity of produce (MT) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2022-23 | | 2023-24 | | 2024-25 | | 2025-26 | | 2026-27 | |
| | | Quantity (MT) | % | Quantity (MT) | % | Quantity (MT) | % | Quantity (MT) | % | Quantity (MT) | % |
| 1. | Paddy – Purchase + Job-Work | 0.00 | 0.00% | 3750 | 100% | 4125 | 100% | 4500 | 100% | 4875 | 100% |

**Notes:**

1. The proposed sub-project is expected to be operational from 2023-24 and hence no quantities for rice are envisaged in 2022-23.

## 8. Proposed value chain of selected crop/ s (crop wise) (Please refer annex for knowing how to write value chain.)

The chart below presents the proposed value chain; i.e. after the project is implemented.




As can be seen in the above chart, the capacity of the CBO (as against any rice mills) to directly market its products to large wholesalers, retailers/ retail chains, exporters, SEP plants and even pursue own branded rice in near future, is enhanced to a great extent owing to setting-up of the proposed high-end rice mill. It is also pertinent to state here that the polishing activity alone not only leads to production of 'pearl white' finishing of rice, it also leads increasing yield of bran which adheres to rice kernel even after whitening process. The length grading operations allow segregation of kernels (including) based on length, which is highly important to ensure higher price for head rice, large broken, medium broken, and small broken (instead of average price being offered currently to mini rice mills in the region, which is relatively lower). The rice is further color sorted to segregate homogenous colored head rice and broken and segregate the off colors as reject, which further assists in pricing products at least 2-3

Rs. Per kg higher. This is expected to increase value accruals to CBO, its farmers as well as to the productive partner.

## 9. Details of buyers selected for developing value chain: -

**(Please provide details of the buyer who signed MoU with CBO )**

<table>
<tr><th>SN</th><th>Details</th><th>Description</th></tr>
<tr><td>1</td><td>Name of buyer</td><td>Deshmukh Rice Mill</td></tr>
<tr><td>2</td><td>Address and contact No.</td><td>At Rajoli,Tah Mouda 9420954507</td></tr>
<tr><td>3</td><td>Details of authorized person (name, designation, contact no. and E-mail id )</td><td>Saraswati Deshmukh<br>9420954507</td></tr>
<tr><td>4</td><td>Type of buyer organization</td><td>1. Processor √</td></tr>
<tr><td>5</td><td>Whether the buyer is registered?</td><td>Yes, Under MSME Act,2006</td></tr>
<tr><td>6</td><td>Registration Number/ License Number</td><td>MH20-B0009456</td></tr>
<tr><td>7</td><td>PAN number</td><td>AJLPD3784C</td></tr>
<tr><td>8</td><td>Buyer total annual average requirement of produce (Quantity in MT)</td><td>500-1500 MT</td></tr>
<tr><td>9</td><td>Quantity of produce to be procured by selected buyer – quantity as per MoU (Year 2021 to 22)</td><td><table><tr><th>crop</th><th>Year</th><th>Agro produce (ton)</th></tr><tr><td>Paddy</td><td>2021-22</td><td>500-1000 MT</td></tr><tr><td>Wheat</td><td>2021-22</td><td>400-500 MT</td></tr></table></td></tr>
<tr><td rowspan="3">10</td><td rowspan="3">Annual turnover of buyer Rs.lakh (last three years)</td><td>2018-19 - 15,52,92,698</td></tr>
<tr><td>2019-20 - 14,30,76,833</td></tr>
<tr><td>2020-21 - 15,38,18,377</td></tr>
</table>

## 10. Quality parameters of agri. / horti. produce to be procured

(Provide details of specific quality parameters as suggested by the buyer. Other terms and condition i.e. transportation, packaging material, availability of crates/ gunny bags etc. )

| Sr.No. | Commodity | Quality parameter for procurement of produce | Other terms / Conditions for produce handing over / transaction |
|---|---|---|---|
| 1 | Rice (Milled), by-products (broken, bran and husk) | Variety- Jai Sri Ram<br>**Quality -** Milled, Length graded, max 5% broken | **Transportation-** borne by **Buyer**<br>Packaging Material- borne by **CBO**<br>Payment Terms- **Cheque or Electronic** |

## 11. How you decided price of commodity (Method for fixing of prices of commodities)

The price of purchase of raw materials from member/ non-member farmers is decided on basis of prevalent mandi rate of the cluster on the date of procurement.

The sale of finished goods to buyer is also market based. For each consignment, price offered is communicated, negotiated and finalized.

### 12. Responsibilities of CBO and the Buyer for developing value chain of crop commodity

| Responsibility of CBO | Responsibility of buyer |
|---|---|
| • CBO shall be responsible for providing predetermined quantity and quality of products on time to the buyer. The processing of products will be done at the CBO's Processing Center.<br>• CBO shall make use of proposed technologies to avail good quality products.<br>• CBO shall plan its production and aggregation as per the requirement of buyer<br>• Every Consignment sent by the CBO shall have transit insurance<br>• CBO shall be intimate buyer on change in its production plan due unavoidable circumstances<br>• Compliance of statutory provisions | • Buyer shall purchase the products at predetermined prices.<br>• Buyer shall make timely payment of procured quantity of products.<br>• Buyer shall be responsible for quality inspection of goods at the time of accepting delivery.<br>• Buyer shall update the CBO on estimated demand for coming months to help CBO plan their aggregation and processing operations.<br>• Compliance of statutory provisions |

**Note:** Provide details in bullet points on quality parameter/ quantity / transportation / payments / technology / produce handing over etc.

### 13. Proposed Business activity/ies

| No. | Business/activities | Operational days in a year (Days) | Remark |
|---|---|---|---|
| **A** | **Secondary processing – Rice Milling – Mixed Model Business (Job Work & Sales)** | | |
| 1 | Rice Milling | 182 days (avg. of 10 years) | - |

### 14. What is the uniqueness and innovation in proposed sub-project?

The sub-project involves adoption of equipment like silky polisher, length grader and color sorter. Largely, most CBOs/FPOs operating rice mills in Maharashtra do not have such high-end processing machines in their mini rice mill units. Thus, the uniqueness of the proposed sub-project is technology difference which will enable the proposed sub-project to directly market to high-end and premium markets. Some of these differentiating machines/processes (which lend uniqueness and innovativeness to the proposed plant), are briefly described as under:

- **Silky polishing:** This process is employed to brush off remaining bran dust and to create a characteristic gloss on the milled rice. In the process, rice is coated with a fine spray of water and subjected to gelatinization in the polishing chamber resulting in desired glossiness to rice.

Silky polishing improves the storability of milled rice because of the complete removal of the bran. In most retail and export markets, rice with good glossy finish is highly desired.

- **Grading:** Rice grading plants can be very simple or they can be bit complicated and offer a large program of alternative grain flows. After the whitening & polishing operation the unbroken rice is still mixed with different sized broken rice, bran, and dust. Separation of these particles after whitening is termed "grading". The degree of grading is determined by the rice market or consumer preference. Many rice markets do not require any grading; others require a sophisticated grading system that will produce clean, bran-free rice with no broken. Most rice markets will accept a small percentage of broken but demand clean and bran-free rice.
  Bran and dust particles are separated by air aspiration. This may be in the form of a blower pulling an airstream through a column of rice, similar to that used in a cleaner, or a special aspirator installed just for this purpose. Small broken and germs are separated by a vibrating or rotary sieve.
  Oscillating or rotating sieves are not used to separate large brokens because their perforations are the same diameter as unbroken rice. Because the length of the brokens differs from the length of the unbroken rice, length separators are used. Also, most premium markets have high sensitivity to percentage of broken in the final rice product (generally around 5%). CBO can manage this only with use of high end length graders.

- **Color Sorter:** Post the above process, color sorting is required for separating unwanted contamination and foreign material from good material based on color and type. In the color sorting process, head rice (and often large broken) to be sorted is fed into the hopper located on a vibrating plate. The plate then spreads it and carries it through slanting sections, where it is further separated. The product then falls through an analysis section where each particle is checked by two optical devices facing each other.

  The characteristic electrical signal for each color is conveyed to a control unit which converts this signal should non-designated particles be present; these are shut-off to the discard bin by means of an air burst fired by ejectors. Product considered good is instead dropped into the good product hopper. The process of color sorting depends upon the principle of differentiating the color of foreign material from the good one by using advanced CCD or high resolution sensors which use image capturing process to check these unwanted / discolored or defected grains. The defects are removed at high speeds without any human interface required. Sorters are often controlled by micro-processors and their sophisticated software allows the use of hundred different sorting programs storable on board.

In addition to the above, these new added machines in the proposed expansion shall lead to-

a. Higher income to CBO and its member farmers
b. Assurance of good quality products to buyers
c. Assurance of safe products for consumption of final consumers.

**15. Key components of sub-project i.e. construction, machinery and other materials required for proposed business / activities**

| x | Details of proposed business/activities | capacity | Rate /Unit (Rs. Lakh) | Total Unit | Tax | Total amount (Rs. Lakh) |
|---|---|---|---|---|---|---|
| | **Business/Activity - Fully Automatic Rice Milling Unit** | | | | | |
| **A** | **Building and Construction** | | | | | |
| 1 | Rice Mill Building & Godown Construction | SQMT | SQMT | 1 | Inc. | 95.64 |
| | | | | | | |
| **B** | **Machinery and equipment (Fully Automatic Rice Mill)** | **3 TPH** | | | | |
| 1 | Pre cleaner with Aspirator | | 2.10 | 1 | 0.11 | 2.21 |
| 2 | Destoner | | 2.27 | 1 | 0.11 | 2.38 |
| 3 | Blower | | 0.63 | 1 | 0.03 | 0.66 |
| 4 | Husker | | 3.31 | 1 | 0.17 | 3.48 |
| 5 | Husk Aspirator | | 1.62 | 1 | 0.08 | 1.70 |
| 6 | Paddy Separator | | 2.43 | 1 | 0.12 | 2.55 |
| 7 | Vertex Pearl | | 6.72 | 1 | 0.34 | 7.06 |
| 8 | Bran Blower | | 0.63 | 1 | 0.03 | 0.66 |
| 9 | AL-II Airlock cyclone 1100MM | | 0.58 | 1 | 0.03 | 0.61 |
| 10 | Bran Rotor | | 0.69 | 1 | 0.03 | 0.72 |
| 11 | Small Bran Roto | | 0.42 | 1 | 0.02 | 0.44 |
| 12 | Small Cyclone | | 0.08 | 2 | 0.01 | 0.17 |
| 13 | Sifter | | 2.90 | 1 | 0.15 | 3.05 |
| 14 | Bran Aspirator with Blower | | 0.40 | 1 | 0.02 | 0.42 |
| 15 | Paddy Bin 2T | | 0.36 | 1 | 0.02 | 0.38 |
| 16 | Neo Sort 1005 | | 23.50 | 1 | 1.18 | 24.68 |
| 17 | Grain Discharger | | 1.1 | 14 | 0.74 | 15.58 |
| 18 | Weigh Bridge | 60 MT | 6.42 | 1 | 1.16 | 7.58 |
| 19 | Air Compressor | | 5.75 | 1 | 1.04 | 6.79 |
| **C** | **Electrical Fittings** | | | | | |
| 1 | Transformer | LS | 3.26 | 1 Set (LS) | Inc. | 3.26 |
| **E** | **Preliminary & Pre-operative Exp.** | LS | 10.32 | LS | - | 9.00 |
| **F** | **Working Capital Margin** | - | - | - | - | 2.24 |
| | **Total** | | | | | **191.25** |

**16. Specify the benefits of working together to CBO its members and buyer**

| Benefits to CBO | Benefits to buyer | Benefits to members |
|---|---|---|
| • Un-interrupted supply of raw material for production, owing to better returns to farmers.<br>• Assured sales of minimum | • Quality product at reasonable price, owing to removal of middlemen chain<br>• Un-interrupted and assured | • Better Price realization for shareholders (Farmers) of their produce- in both instances- whether use |

| Benefits to CBO | Benefits to buyer | Benefits to members |
|---|---|---|
| fixed volumes to productive partner.<br>• Greater revenue and profits for CBO<br>• Ability to process premium products, owing to adoption of proposed technology<br>• Larger share of market, through enhanced market access | supply as per specifications<br>• Streamlining of product supply chain and stronger backward linkages | job-work services or direct sale to CBO<br>• Don't have to deal with middlemen or any unfair practices.<br>• Assured market for the agricultural produce<br>• Timely realization of sale proceeds. |

# Section 4 Sub Project Implementation Plan

### 4.1 Implementation of key activities proposed under sub-project

It is expected that the project's civil works will be completed in the first 4 quarters after SMART's Sanction. The Plant and Machinery components are expected to be procured and installed in the Q3, Q4 (of Y1) & Q1 (Y2). It is expected that the sub-project will be operational in 18 months from date of SMART's sanction.

| No. | Particulars of activities | Year 1 | | | | Year 2 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Q-1 | Q-2 | Q-3 | Q-4 | Q-1 | Q-2 | Q-3 | Q-4 |
| A | Construction of building (Civil Works) | | | | | | | | |
| B | Plant and machineries (Polishing & Grading | | | | | | | | |
| C | Misc. Fixed Assets | | | | | | | | |
| D | Preliminary & Preoperative Expenses | | | | | | | | |
| E | Operationalization | | | | | | | | |

# Section 5 Sub-project Budget and Financial Analysis

## 5.1 Sub project budget and means of finance

### 5.1.1 Budget

| x | Details of proposed business/activities | capacity | Rate /Unit (Rs. Lakh) | Total Unit | Tax | Total amount (Rs. Lakh) |
|---|---|---|---|---|---|---|
| | **Business/Activity - Fully Automatic Rice Milling Unit** | | | | | |
| **A** | **Building and Construction** | | | | | |
| 1 | Rice Mill Building & Godown Construction | SQMT | SQMT | 1 | Inc. | 95.64 |
| | | | | | | |
| **B** | **Machinery and equipment (Fully Automatic Rice Mill)** | **3 TPH** | | | | |
| 1 | Pre cleaner with Aspirator | | 2.10 | 1 | 0.11 | 2.21 |
| 2 | Destoner | | 2.27 | 1 | 0.11 | 2.38 |
| 3 | Blower | | 0.63 | 1 | 0.03 | 0.66 |
| 4 | Husker | | 3.31 | 1 | 0.17 | 3.48 |
| 5 | Husk Aspirator | | 1.62 | 1 | 0.08 | 1.70 |
| 6 | Paddy Separator | | 2.43 | 1 | 0.12 | 2.55 |
| 7 | Vertex Pearl | | 6.72 | 1 | 0.34 | 7.06 |
| 8 | Bran Blower | | 0.63 | 1 | 0.03 | 0.66 |
| 9 | AL-II Airlock cyclone 1100MM | | 0.58 | 1 | 0.03 | 0.61 |
| 10 | Bran Rotor | | 0.69 | 1 | 0.03 | 0.72 |
| 11 | Small Bran Roto | | 0.42 | 1 | 0.02 | 0.44 |
| 12 | Small Cyclone | | 0.08 | 2 | 0.01 | 0.17 |
| 13 | Sifter | | 2.90 | 1 | 0.15 | 3.05 |
| 14 | Bran Aspirator with Blower | | 0.40 | 1 | 0.02 | 0.42 |
| 15 | Paddy Bin 2T | | 0.36 | 1 | 0.02 | 0.38 |
| 16 | Neo Sort 1005 | | 23.50 | 1 | 1.18 | 24.68 |
| 17 | Grain Discharger | | 1.1 | 14 | 0.74 | 15.58 |
| 18 | Weigh Bridge | 60 MT | 6.42 | 1 | 1.16 | 7.58 |
| 19 | Air Compressor | | 5.75 | 1 | 1.04 | 6.79 |
| **C** | **Electrical Fittings** | | | | | |
| 1 | Transformer | LS | 3.26 | 1 Set (LS) | Inc. | 3.26 |
| **E** | **Preliminary & Pre-operative Exp.** | LS | 10.32 | LS | - | 9.00 |
| **F** | **Working Capital Margin** | - | - | - | - | 2.24 |
| | **Total** | | | | | **191.25** |

### 5.1.2 Means of finance

| Particulars | Amount (Rs in Lakh) | % of total funding |
|---|---|---|
| Promoters' Contribution | 77.84 | 40.70% |
| Grant | 113.41 | 59.30% |
| Bank Term Loan | - | - |
| **Total** | **191.25** | **100%** |

### 5.2. Financial Analysis

### 5.2.1 Project Cost Summary:

| Sr. No. | Component | Amount (Rs. Lakh) | *Smart Subsidy % | Smart Subsidy Amount (Rs. Lakh) |
|---|---|---|---|---|
| 1 | Land | - | - | - |
| 2 | Building & Civil Work | 95.64 | 60% | 57.38 |
| 3 | Machineries & Equipment | 84.37 | 60% | 50.62 |
| 4 | Preliminary and Preoperative Expenses | 9.00 | 60% | 5.40 |
| 5 | WCM | 2.24 | - | - |
| | **Total** | **191.25** | | **113.41** |

**Note:** The applicant understands that the final grant/subsidy from SMART may change as per final decision of the State Proposal Approval Committee. The applicant undertakes that reduction (if an) in subsidy/grant will be financed by additional equity. The applicant also undertakes that any escalation during implementation of the project shall be met by additional equity from promoters and members.

### 5.2.2 Depreciation Estimates - SLM

| Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Building and Civil Works** | | | | | | | | | | |
| Opening Balance | 95.64 | 92.61 | 89.58 | 86.54 | 83.51 | 80.48 | 77.45 | 74.42 | 71.39 | 68.35 |
| Depreciation @ 3.17% | 3.03 | 3.03 | 3.03 | 3.03 | 3.03 | 3.03 | 3.03 | 3.03 | 3.03 | 3.03 |
| Closing balance | 92.61 | 89.58 | 86.54 | 83.51 | 80.48 | 77.45 | 74.42 | 71.39 | 68.35 | 65.32 |
| | | | | | | | | | | |
| **Machinery & equipment** | | | | | | | | | | |
| Opening Bal | 84.37 | 79.03 | 73.69 | 68.35 | 63.01 | 57.67 | 52.33 | 46.99 | 41.65 | 36.31 |
| Depreciaton @ 6.33% | 5.34 | 5.34 | 5.34 | 5.34 | 5.34 | 5.34 | 5.34 | 5.34 | 5.34 | 5.34 |
| Closing balance | 79.03 | 73.69 | 68.35 | 63.01 | 57.67 | 52.33 | 46.99 | 41.65 | 36.31 | 30.96 |
| | | | | | | | | | | |
| **Total Opening Balance** | **180.01** | **171.64** | **163.27** | **154.89** | **146.52** | **138.15** | **129.78** | **121.40** | **113.03** | **104.66** |
| **Total Depreciation** | **8.37** | **8.37** | **8.37** | **8.37** | **8.37** | **8.37** | **8.37** | **8.37** | **8.37** | **8.37** |
| **Closing balance** | **171.64** | **163.27** | **154.89** | **146.52** | **138.15** | **129.78** | **121.40** | **113.03** | **104.66** | **96.29** |

### 5.2.3 Amortization

| Particulars | | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | In Rs. Lakh |
| **Total P&P Exp.** | **9.00** | | | | | | | | | | |
| Amortization Rate PA | 10% | | | | | | | | | | |
| P&P Exp. W/O | | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |

### 5.2.4 Bank Loan Projection

Not Applicable, as no Term Loan is sought.

### 5.2.5 Revenue and Expenses Assumption

**The various supporting schedules and computations, clearly outlining items of revenues and expenditure are presented in tables below:**

### 5.2.5.1. Output Schedule

| Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| **Rice Mill** | | | | | | | | | | |
| **Plant Capacity** | **3 TPH** | | | | | | | | | |
| **Total Annual Plant Capacity (MT)** | **7500** | **7500** | **7500** | **7500** | **7500** | **7500** | **7500** | **7500** | **7500** | **7500** |
| **90% reserved for JW Services** | **6750** | **6750** | **6750** | **6750** | **6750** | **6750** | **6750** | **6750** | **6750** | **6750** |
| **10% reserved for Captive operations** | **750** | **750** | **750** | **750** | **750** | **750** | **750** | **750** | **750** | **750** |
| **Capacity Utilization (JW Services)** | **50%** | **55.00%** | **60.00%** | **65.00%** | **70.00%** | **75.00%** | **80.00%** | **85.00%** | **90.00%** | **95.00%** |
| **Capacity Utilization (Captive Operations)** | **50%** | **55.00%** | **60.00%** | **65.00%** | **70.00%** | **75.00%** | **80.00%** | **85.00%** | **90.00%** | **95.00%** |
| | | | | | | | | | | |
| **Job work Services** | | | | | | | | | | |
| Total Input (Paddy) (MT) | 3375 | 3712.5 | 4050 | 4387.5 | 4725 | 5062.5 | 5400 | 5737.5 | 6075 | 6412.5 |
| Job work Charges- Rs/MT | 1,100 | 1,155 | 1,213 | 1,274 | 1,338 | 1,405 | 1,475 | 1,549 | 1,626 | 1,707 |
| **Total JW Receipts (Rs. Lakh)** | **37.13** | **42.88** | **49.13** | **55.90** | **63.22** | **71.13** | **79.65** | **88.87** | **98.78** | **109.46** |
| | | | | | | | | | | |
| **Captive Operations** | | | | | | | | | | |
| Total Input (Paddy) (MT) | 375 | 412.5 | 450 | 487.5 | 525 | 562.5 | 600 | 637.5 | 675 | 712.5 |
| | | | | | | | | | | |
| **Captive Operations Grade Output (MT)** | | | | | | | | | | |
| Rice | 188 | 206 | 225 | 244 | 263 | 281 | 300 | 319 | 338 | 356 |
| Husk | 75 | 83 | 90 | 98 | 105 | 113 | 120 | 128 | 135 | 143 |
| Broken | 75 | 83 | 90 | 98 | 105 | 113 | 120 | 128 | 135 | 143 |
| Bran | 30 | 33 | 36 | 39 | 42 | 45 | 48 | 51 | 54 | 57 |
| | | | | | | | | | | |
| Paddy processed per day (MT) | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |

| Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| No of days of operation (JW Services) | 113 | 124 | 135 | 146 | 158 | 169 | 180 | 191 | 203 | 214 |
| No of days of operation (Captive Operations) | 13 | 14 | 15 | 16 | 18 | 19 | 20 | 21 | 23 | 24 |
| | | | | | | | | | | |
| **Total Working days of the Facility** | **126** | **138** | **150** | **162** | **176** | **188** | **200** | **212** | **226** | **238** |

**Note:** The total working days in a year have been considered at 250 days annually. This is done as per general operating pattern of rice mills in the project region.

### 5.2.5.2. Closing Stock of RM- Captive Operations

| Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Raw Material (MT)** | | | | | | | | | | |
| **Paddy** | | | | | | | | | | |
| Opening Stock | 0 | 16 | 17 | 19 | 20 | 22 | 23 | 25 | 27 | 28 |
| Purchase | 391 | 414 | 452 | 489 | 527 | 564 | 602 | 640 | 676 | 715 |
| Consumed | 375 | 413 | 450 | 488 | 525 | 563 | 600 | 638 | 675 | 713 |
| Closing stock | 16 | 17 | 19 | 20 | 22 | 23 | 25 | 27 | 28 | 30 |
| | | | | | | | | | | |
| **Prices (per MT)** | | | | | | | | | | |
| **Mandi Price** | 23,100 | 24,260 | 25,470 | 26,740 | 28,080 | 29,480 | 30,950 | 32,500 | 34,130 | 35,840 |
| | | | | | | | | | | |
| **Value of Opening Stock (Rs. Lakh)** | **-** | **3.70** | **4.12** | **4.84** | **5.35** | **6.18** | **6.78** | **7.74** | **8.78** | **9.56** |
| **Value of Closing Stock (Rs. Lakh)** | **3.70** | **4.12** | **4.84** | **5.35** | **6.18** | **6.78** | **7.74** | **8.78** | **9.56** | **10.75** |

### 5.2.5.3. Purchase Schedule- Captive Operations

| Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Paddy | 391 | 414 | 452 | 489 | 527 | 564 | 602 | 640 | 676 | 715 |
| Rate (Rs. per MT) | 23,100.00 | 24,260.00 | 25,470.00 | 26,740.00 | 28,080.00 | 29,480.00 | 30,950.00 | 32,500.00 | 34,130.00 | 35,840.00 |
| | | | | | | | | | | |
| **Purchases (Rs. In Lakh)** | **90.32** | **100.44** | **115.12** | **130.76** | **147.98** | **166.27** | **186.32** | **208.00** | **230.72** | **256.26** |

### 5.2.5.4. Closing Stock of FG- Captive Operations

| # | Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Finished Goods (MT)** | | | | | | | | | | |
| **A** | **Rice** | | | | | | | | | | |
| | Opn Stock | 0 | 8 | 9 | 10 | 11 | 11 | 12 | 13 | 14 | 15 |
| | Total Production | 188 | 206 | 225 | 244 | 263 | 281 | 300 | 319 | 338 | 356 |
| | Sales | 180 | 205 | 224 | 243 | 263 | 280 | 299 | 318 | 337 | 356 |
| | Closing Stock | 8 | 9 | 10 | 11 | 11 | 12 | 13 | 14 | 15 | 15 |
| | | | | | | | | | | | |
| **B** | **Husk** | | | | | | | | | | |
| | Opn Stock | 0 | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 6 | 6 |
| | Total Production | 75 | 83 | 90 | 98 | 105 | 113 | 120 | 128 | 135 | 143 |
| | Sales | 72 | 82 | 90 | 98 | 104 | 113 | 120 | 127 | 135 | 143 |
| | Closing Stock | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 |
| | | | | | | | | | | | |
| **C** | **Broken** | | | | | | | | | | |

| # | Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Opn Stock | 0 | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 6 | 6 |
| | Total Production | 75 | 83 | 90 | 98 | 105 | 113 | 120 | 128 | 135 | 143 |
| | Sales | 72 | 82 | 90 | 98 | 104 | 113 | 120 | 127 | 135 | 143 |
| | Closing Stock | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 |
| | | | | | | | | | | | |
| **D** | **Bran** | | | | | | | | | | |
| | Opn Stock | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | Total Production | 30 | 33 | 36 | 39 | 42 | 45 | 48 | 51 | 54 | 57 |
| | Sales | 29 | 33 | 35 | 39 | 42 | 45 | 48 | 51 | 54 | 57 |
| | Closing Stock | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | | | | | | | | | | |
| | **Selling Price (Rs/MT)** | | | | | | | | | | |
| A | Rice | 44,000.00 | 46,200.00 | 48,510.00 | 50,940.00 | 53,490.00 | 56,160.00 | 58,970.00 | 61,920.00 | 65,020.00 | 68,270.00 |
| B | Husk | 2,000.00 | 2,100.00 | 2,210.00 | 2,320.00 | 2,440.00 | 2,560.00 | 2,690.00 | 2,820.00 | 2,960.00 | 3,110.00 |
| C | Broken | 20,000.00 | 21,000.00 | 22,050.00 | 23,150.00 | 24,310.00 | 25,530.00 | 26,810.00 | 28,150.00 | 29,560.00 | 31,040.00 |
| D | Bran | 10,000.00 | 10,500.00 | 11,030.00 | 11,580.00 | 12,160.00 | 12,770.00 | 13,410.00 | 14,080.00 | 14,780.00 | 15,520.00 |
| | | | | | | | | | | | |
| **A** | **Rice** | | | | | | | | | | |
| | Value of Opening Stock (Rs. Lakh) | - | 3.52 | 4.16 | 4.85 | 5.60 | 5.88 | 6.74 | 7.67 | 8.67 | 9.75 |
| | Value of Closing Stock (Rs. Lakh) | 3.52 | 4.16 | 4.85 | 5.60 | 5.88 | 6.74 | 7.67 | 8.67 | 9.75 | 10.24 |
| | | | | | | | | | | | |
| **B** | **Husk** | | | | | | | | | | |
| | Value of Opening Stock (Rs. Lakh) | - | 0.06 | 0.08 | 0.09 | 0.09 | 0.12 | 0.13 | 0.13 | 0.17 | 0.18 |
| | Value of Closing Stock (Rs. Lakh) | 0.06 | 0.08 | 0.09 | 0.09 | 0.12 | 0.13 | 0.13 | 0.17 | 0.18 | 0.19 |
| | | | | | | | | | | | |

| # | Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **C** | **Broken** | | | | | | | | | | |
| | Value of Opening Stock (Rs. Lakh) | - | 0.60 | 0.84 | 0.88 | 0.93 | 1.22 | 1.28 | 1.34 | 1.69 | 1.77 |
| | Value of Closing Stock (Rs. Lakh) | 0.60 | 0.84 | 0.88 | 0.93 | 1.22 | 1.28 | 1.34 | 1.69 | 1.77 | 1.86 |
| | | | | | | | | | | | |
| D | **Bran** | | | | | | | | | | |
| | Value of Opening Stock (Rs. Lakh) | - | 0.10 | 0.11 | 0.22 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.30 |
| | Value of Closing Stock (Rs. Lakh) | 0.10 | 0.11 | 0.22 | 0.23 | 0.24 | 0.26 | 0.27 | 0.28 | 0.30 | 0.31 |
| | | | | | | | | | | | |
| | **All Products** | | | | | | | | | | |
| | **Value of Opening Stock (Rs. Lakh)** | **-** | **4.28** | **5.19** | **6.04** | **6.85** | **7.46** | **8.40** | **9.41** | **10.81** | **12.00** |
| | **Value of Closing Stock (Rs. Lakh)** | **4.28** | **5.19** | **6.04** | **6.85** | **7.46** | **8.40** | **9.41** | **10.81** | **12.00** | **12.60** |

### 5.2.5.6. Sales Schedule- Captive Operations

| # | Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **A** | **Rice** | 180 | 205 | 224 | 243 | 263 | 280 | 299 | 318 | 337 | 356 |
| | Rate (per MT) | 44,000.00 | 46,200.00 | 48,510.00 | 50,940.00 | 53,490.00 | 56,160.00 | 58,970.00 | 61,920.00 | 65,020.00 | 68,270.00 |
| | **Sales (in Rs. Lakh)** | **79.20** | **94.71** | **108.66** | **123.78** | **140.68** | **157.25** | **176.32** | **196.91** | **219.12** | **243.04** |
| | | | | | | | | | | | |
| **B** | **Husk** | 72 | 82 | 90 | 98 | 104 | 113 | 120 | 127 | 135 | 143 |
| | Rate (per MT) | 2,000.00 | 2,100.00 | 2,210.00 | 2,320.00 | 2,440.00 | 2,560.00 | 2,690.00 | 2,820.00 | 2,960.00 | 3,110.00 |
| | **Sales (in Rs. Lakh)** | **1.44** | **1.72** | **1.99** | **2.27** | **2.54** | **2.89** | **3.23** | **3.58** | **4.00** | **4.45** |
| | | | | | | | | | | | |

| # | Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C | **Broken** | 72 | 82 | 90 | 98 | 104 | 113 | 120 | 127 | 135 | 143 |
| | Rate (per MT) | 20,000.00 | 21,000.00 | 22,050.00 | 23,150.00 | 24,310.00 | 25,530.00 | 26,810.00 | 28,150.00 | 29,560.00 | 31,040.00 |
| | **Sales (in Rs. Lakh)** | **14.40** | **17.22** | **19.85** | **22.69** | **25.28** | **28.85** | **32.17** | **35.75** | **39.91** | **44.39** |
| | | | | | | | | | | | |
| C | **Bran** | 29 | 33 | 35 | 39 | 42 | 45 | 48 | 51 | 54 | 57 |
| | Rate (per MT) | 10,000.00 | 10,500.00 | 11,030.00 | 11,580.00 | 12,160.00 | 12,770.00 | 13,410.00 | 14,080.00 | 14,780.00 | 15,520.00 |
| | **Sales (in Rs. Lakh)** | **2.90** | **3.47** | **3.86** | **4.52** | **5.11** | **5.75** | **6.44** | **7.18** | **7.98** | **8.85** |
| | | | | | | | | | | | |
| | **Total Sales** | **97.94** | **117.12** | **134.36** | **153.26** | **173.61** | **194.74** | **218.16** | **243.42** | **271.00** | **300.72** |

### 5.2.5.6. Weigh Bridge Service Revenue Schedule

| # | Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | **Trucks Weighed per day** | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| | No. of days of operation | 126.00 | 138.00 | 150.00 | 162.00 | 176.00 | 188.00 | 200.00 | 212.00 | 226.00 | 238.00 |
| | Charges per vehicle | 200.00 | 210.00 | 220.00 | 230.00 | 240.00 | 250.00 | 260.00 | 270.00 | 280.00 | 290.00 |
| | **Revenue** | **2.52** | **3.19** | **3.96** | **4.84** | **5.91** | **7.05** | **8.32** | **9.73** | **11.39** | **13.11** |
| | | | | | | | | | | | |
| B | **Tractors Weighed per day** | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| | No. of days of operation | 126.00 | 138.00 | 150.00 | 162.00 | 176.00 | 188.00 | 200.00 | 212.00 | 226.00 | 238.00 |
| | Charges per vehicle | 100.00 | 110.00 | 120.00 | 130.00 | 140.00 | 150.00 | 160.00 | 170.00 | 180.00 | 190.00 |
| | **Revenue** | **1.26** | **1.67** | **2.16** | **2.74** | **3.45** | **4.23** | **5.12** | **6.13** | **7.32** | **8.59** |
| | | | | | | | | | | | |
| | **Total Revenue** | **3.78** | **4.86** | **6.12** | **7.58** | **9.36** | **11.28** | **13.44** | **15.86** | **18.71** | **21.71** |

### 5.2.5.7. Consolidated OPEX Schedule

| Particulars | Basis | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| **Fixed Exp** | | | | | | | | | | | |
| **Office & Admin** | | | | | | | | | | | |
| Printing & Stationery | 2000 p.m. | 0.24 | 0.25 | 0.26 | 0.28 | 0.29 | 0.31 | 0.32 | 0.34 | 0.35 | 0.37 |
| Telephone | 1000 p.m. | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |
| Rent for Land | 1000 p.m. | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |
| Internet & Broadband | 1250 p.m. | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 | 0.23 |
| Office Electricity | 5 KVA (Power chart) | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |
| Accounting Charges | 3000 p.m. | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.51 | 0.53 | 0.56 |
| Legal Expenses | 3000 p.m. | 0.36 | 0.38 | 0.40 | 0.42 | 0.44 | 0.46 | 0.48 | 0.51 | 0.53 | 0.56 |
| Admin Staff Salary | Admin Manpower Chart | 5.04 | 5.29 | 5.56 | 5.83 | 6.13 | 6.43 | 6.75 | 7.09 | 7.45 | 7.82 |
| Conveyance | 5000 p.m. | 0.60 | 0.63 | 0.66 | 0.69 | 0.73 | 0.77 | 0.80 | 0.84 | 0.89 | 0.93 |
| Travelling Expenses | 5000 p.m. | 0.60 | 0.63 | 0.66 | 0.69 | 0.73 | 0.77 | 0.80 | 0.84 | 0.89 | 0.93 |
| Perodicals | 1000 p.m. | 0.12 | 0.13 | 0.13 | 0.14 | 0.15 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |
| Staff Welfare | 10% of Staff Salaries | 0.50 | 0.53 | 0.56 | 0.58 | 0.61 | 0.64 | 0.68 | 0.71 | 0.74 | 0.78 |
| **Total (Office and Admin Fixed Exp)** | | **8.33** | **8.75** | **9.19** | **9.65** | **10.13** | **10.64** | **11.17** | **11.73** | **12.31** | **12.93** |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| **Factory Exp (Fixed)** | | | | | | | | | | | |
| Repairs | 1% of machine cost & civil works | 1.80 | 1.89 | 1.98 | 2.08 | 2.19 | 2.30 | 2.41 | 2.53 | 2.66 | 2.79 |

| Particulars | Basis | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Insurance | 0.5% of the Capital Investment | 0.90 | 0.95 | 0.99 | 1.04 | 1.09 | 1.15 | 1.21 | 1.27 | 1.33 | 1.40 |
| Factory Staff Salary | Factory Staff Manpower Chart | 8.04 | 8.44 | 8.86 | 9.31 | 9.77 | 10.26 | 10.77 | 11.31 | 11.88 | 12.47 |
| Electricity | 83 KVA (Power chart) | 1.99 | 2.09 | 2.20 | 2.31 | 2.42 | 2.54 | 2.67 | 2.80 | 2.94 | 3.09 |
| **Total (Fixed Factory Exp)** | | **12.73** | **13.37** | **14.04** | **14.74** | **15.48** | **16.25** | **17.06** | **17.92** | **18.81** | **19.75** |
| | | | | | | | | | | | |
| **Variable Exp** | | | | | | | | | | | |
| Labour | Variable Manpower Chart | 2.27 | 2.90 | 3.60 | 4.37 | 5.28 | 6.20 | 7.20 | 7.63 | 8.14 | 8.57 |
| Electricity | 88 KVA (Power chart) | 7.10 | 7.77 | 8.45 | 9.12 | 9.91 | 10.59 | 11.26 | 11.94 | 12.73 | 13.40 |
| Water | 50 Rs. Per day | 0.06 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 | 0.10 | 0.11 | 0.11 | 0.12 |
| Wax and Other consumables | Nil | | | | | | | | | | |
| Packaging Material | 480/ton | 1.80 | 1.98 | 2.16 | 2.34 | 2.52 | 2.70 | 2.88 | 3.06 | 3.24 | 3.42 |
| Stocks of Safety Gear (gloves, shoes, disinfectants, etc) | 800/labour | 0.05 | 0.06 | 0.06 | 0.07 | 0.08 | 0.09 | 0.10 | 0.10 | 0.10 | 0.10 |
| Rental Charges for Reefer van from third party | none | - | - | - | - | - | - | - | - | - | - |
| Transportation Expenses | 500/ton | 1.88 | 2.06 | 2.25 | 2.44 | 2.63 | 2.81 | 3.00 | 3.19 | 3.38 | 3.56 |
| Repairs & Maintainence | 300/day | 0.38 | 0.41 | 0.45 | 0.49 | 0.53 | 0.56 | 0.60 | 0.64 | 0.68 | 0.71 |
| Selling & Dist Exp | 500/ton | 1.62 | 1.85 | 2.02 | 2.20 | 2.36 | 2.53 | 2.70 | 2.86 | 3.04 | 3.21 |
| Misc Exp | 500/day | 0.63 | 0.69 | 0.75 | 0.81 | 0.88 | 0.94 | 1.00 | 1.06 | 1.13 | 1.19 |
| | | | | | | | | | | | |
| **Total Variable Exp** | | **15.78** | **17.79** | **19.82** | **21.92** | **24.27** | **26.52** | **28.84** | **30.58** | **32.53** | **34.28** |

### 5.2.5.8. Working Capital Assessment

| | Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| 1 | Debtors | 11.57 | 13.74 | 15.80 | 18.06 | 20.52 | 23.10 | 25.94 | 29.01 | 32.37 | 35.99 |
| 2 | Stock | 7.98 | 9.31 | 10.88 | 12.20 | 13.64 | 15.18 | 17.15 | 19.58 | 21.56 | 23.35 |
| 3 | Creditors | 10.60 | 11.70 | 13.18 | 14.76 | 16.49 | 18.31 | 20.28 | 22.35 | 24.53 | 26.94 |
| | | | | | | | | | | | |
| | Total Working Capital Requirement | 8.95 | 11.35 | 13.50 | 15.51 | 17.67 | 19.97 | 22.80 | 26.24 | 29.40 | 32.41 |
| | | | | | | | | | | | |
| | W.C Margin | 2.24 | 2.84 | 3.38 | 3.88 | 4.42 | 4.99 | 5.70 | 6.56 | 7.35 | 8.10 |
| | | | | | | | | | | | |
| | W.C Loan (unsecured loan from Directors) | 6.71 | 8.52 | 10.13 | 11.63 | 13.25 | 14.98 | 17.10 | 19.68 | 22.05 | 24.31 |

**Note:** As the project becomes operational, the project promoters will infuse annually the required WCL as unsecured loan.

### 5.2.5.9. Schedule of Income Tax

| Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Profit As per P&L | 9.78 | 15.81 | 22.82 | 30.68 | 39.31 | 48.39 | 59.02 | 71.32 | 84.83 | 99.00 |
| Add: Depreciation by SLM method | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 |

| Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Less: Depreciation by WDV method | 22.22 | 19.37 | 16.89 | 14.74 | 12.88 | 11.26 | 9.86 | 8.63 | 7.57 | 6.64 |
| Less: P& P Expenses | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Taxable profit | -4.97 | 3.92 | 13.40 | 23.40 | 33.90 | 44.60 | 56.63 | 70.16 | 84.74 | 99.84 |
| Loss b/f | 0.00 | -4.97 | -1.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| loss c/f | -4.97 | -1.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Net taxable profit | 0.00 | 0.00 | 12.35 | 23.40 | 33.90 | 44.60 | 56.63 | 70.16 | 84.74 | 99.84 |
| **Income Tax 30%** | **0.00** | **0.00** | **3.71** | **7.02** | **10.17** | **13.38** | **16.99** | **21.05** | **25.42** | **29.95** |

### 5.2.6 Projected Profit & Loss Statement

| Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Revenue from Sale | 97.94 | 117.12 | 134.36 | 153.26 | 173.61 | 194.74 | 218.16 | 243.42 | 271.00 | 300.72 |
| Revenue- Service Charges - Rice Milling | 37.13 | 42.88 | 49.13 | 55.90 | 63.22 | 71.13 | 79.65 | 88.87 | 98.78 | 109.46 |
| Revenue from Weigh Bridge operation | 3.78 | 4.86 | 6.12 | 7.58 | 9.36 | 11.28 | 13.44 | 15.86 | 18.71 | 21.71 |
| **Total Revenue** | **138.85** | **164.85** | **189.60** | **216.74** | **246.19** | **277.14** | **311.25** | **348.15** | **388.49** | **431.89** |
| | | | | | | | | | | |
| Less:- Opening Stock of F.G. | - | 4.28 | 5.19 | 6.04 | 6.85 | 7.46 | 8.40 | 9.41 | 10.81 | 12.00 |
| Add:-Closing Stock of F. G. | 4.28 | 5.19 | 6.04 | 6.85 | 7.46 | 8.40 | 9.41 | 10.81 | 12.00 | 12.60 |
| | | | | | | | | | | |
| ***Cost of Finish Goods*** | **143.13** | **165.76** | **190.46** | **217.55** | **246.80** | **278.08** | **312.26** | **349.55** | **389.68** | **432.49** |
| | | | | | | | | | | |
| Raw Material Purchased | 90.32 | 100.44 | 115.12 | 130.76 | 147.98 | 166.27 | 186.32 | 208.00 | 230.72 | 256.26 |
| | | | | | | | | | | |
| Add:- Opening Stock of R.M | - | 3.70 | 4.12 | 4.84 | 5.35 | 6.18 | 6.78 | 7.74 | 8.78 | 9.56 |

| Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Less:-Closing Stock of R.M. | 3.70 | 4.12 | 4.84 | 5.35 | 6.18 | 6.78 | 7.74 | 8.78 | 9.56 | 10.75 |
| | | | | | | | | | | |
| ***Cost of Material Consumed*** | **86.63** | **100.01** | **114.41** | **130.25** | **147.15** | **165.66** | **185.36** | **206.96** | **229.94** | **255.06** |
| | | | | | | | | | | |
| **Total Fixed exp** | **21.07** | **22.12** | **23.23** | **24.39** | **25.61** | **26.89** | **28.23** | **29.64** | **31.12** | **32.68** |
| | | | | | | | | | | |
| **Total Variable exp** | **15.78** | **17.79** | **19.82** | **21.92** | **24.27** | **26.52** | **28.84** | **30.58** | **32.53** | **34.28** |
| | | | | | | | | | | |
| Preliminary exp written off | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| | | | | | | | | | | |
| Profit Before Interest and Depn | 18.76 | 24.95 | 32.11 | 40.10 | 48.87 | 58.11 | 68.93 | 81.47 | 95.19 | 109.56 |
| Term loan interest | - | - | - | - | - | - | - | - | - | - |
| Interest on WC | 0.60 | 0.77 | 0.91 | 1.05 | 1.19 | 1.35 | 1.54 | 1.77 | 1.98 | 2.19 |
| Depreciation (SLM) | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 |
| | | | | | | | | | | |
| Profit Before Tax | 9.78 | 15.81 | 22.82 | 30.68 | 39.31 | 48.39 | 59.02 | 71.32 | 84.83 | 99.00 |
| Less. Tax | 0.00 | 0.00 | 3.71 | 7.02 | 10.17 | 13.38 | 16.99 | 21.05 | 25.42 | 29.95 |
| **Profit After Tax** | **9.78** | **15.81** | **19.12** | **23.65** | **29.14** | **35.01** | **42.03** | **50.27** | **59.41** | **69.05** |

### 5.2.7 Cash Flow Statement Projection

| | Particulars | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1** | **Revenue** | | | | | | | | | | | |
| | **Total Revenue** | **-** | 138.85 | 164.85 | 189.60 | 216.74 | 246.19 | 277.14 | 311.25 | 348.15 | 388.49 | 431.89 |
| **2** | **Term Loan** | **0.00** | | - | - | - | - | - | - | - | - | - |
| **3** | **Promoters' Capital** | **77.84** | | - | - | - | - | - | - | - | - | - |

| | Particulars | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4** | **W.Capital loan** | | 6.71 | 1.80 | 1.61 | 1.51 | 1.62 | 1.72 | 2.12 | 2.58 | 2.37 | 2.26 |
| **5** | **Grant** | **113.41** | - | - | - | - | - | - | - | - | - | - |
| **6** | **Increase in Current Liabilities** | | 10.60 | 1.10 | 1.49 | 1.57 | 1.73 | 1.82 | 1.98 | 2.07 | 2.18 | 2.40 |
| | | | | | | | | | | | | |
| | **Sub Total (A)** | **191.25** | **156.15** | **167.76** | **192.70** | **219.82** | **249.54** | **280.69** | **315.35** | **352.80** | **393.04** | **436.55** |
| | **Cash Outflow (Rs.)** | | | | | | | | | | | |
| **1** | **Capital Expenditure** | | | | | | | | | | | |
| a | Civil Works and P&M | 180.01 | - | - | - | - | - | - | - | - | - | - |
| b | Pre-operative exp. | 9.00 | - | - | - | - | - | - | - | - | - | - |
| c | Contingencies | 0.00 | - | - | - | - | - | - | - | - | - | - |
| d | MFA | 0.00 | - | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | | |
| **2** | **Operational Expenditure** | | | | | | | | | | | |
| a | Fixed Cost (Excl. Of Interest) | | 21.07 | 22.12 | 23.23 | 24.39 | 25.61 | 26.89 | 28.23 | 29.64 | 31.12 | 32.68 |
| b | Variable Cost | | 15.78 | 17.79 | 19.82 | 21.92 | 24.27 | 26.52 | 28.84 | 30.58 | 32.53 | 34.28 |
| c | Cost of Material Purchased | | 90.32 | 100.44 | 115.12 | 130.76 | 147.98 | 166.27 | 186.32 | 208.00 | 230.72 | 256.26 |
| **3** | **Loan Repayment** | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| a | Interest: TL | | - | - | - | - | - | - | - | - | - | - |
| b | Interest WC | | 0.60 | 0.77 | 0.91 | 1.05 | 1.19 | 1.35 | 1.54 | 1.77 | 1.98 | 2.19 |
| **4** | **Increase in Current Assets** | | 11.57 | 2.17 | 2.06 | 2.26 | 2.45 | 2.58 | 2.84 | 3.08 | 3.36 | 3.62 |
| | | | | | | | | | | | | |
| **5** | **Tax** | | - | - | 3.71 | 7.02 | 10.17 | 13.38 | 16.99 | 21.05 | 25.42 | 29.95 |
| **6** | **Differencial tax liabilities** | | | | | | | | | | | |
| | **Sub Total (B)** | **189.01** | **139.34** | **143.28** | **164.85** | **187.39** | **211.67** | **236.98** | **264.76** | **294.12** | **325.14** | **358.98** |
| | **Net Cash Flow (A-B)** | **2.24** | **16.81** | **24.48** | **27.85** | **32.43** | **37.87** | **43.71** | **50.59** | **58.69** | **67.90** | **77.57** |
| | Opening Cash and Bank | | 2.24 | 19.05 | 43.53 | 71.38 | 103.81 | 141.68 | 185.39 | 235.98 | 294.66 | 362.56 |
| | **Cumulative Cash Balance** | **2.24** | **19.05** | **43.53** | **71.38** | **103.81** | **141.68** | **185.39** | **235.98** | **294.66** | **362.56** | **440.13** |

**5.2.8 Balance Sheet Statement Projection**

| Particulars | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **LIABILITIES** | | | | | | | | | | | |
| | | | | | | | | | | | |
| **Promoters' Capital** | **77.84** | 77.84 | 77.84 | 77.84 | 77.84 | 77.84 | 77.84 | 77.84 | 77.84 | 77.84 | 77.84 |
| | | | | | | | | | | | |
| **Total Capital** | **77.84** | **77.84** | **77.84** | **77.84** | **77.84** | **77.84** | **77.84** | **77.84** | **77.84** | **77.84** | **77.84** |
| | | | | | | | | | | | |
| Reserves & Surplus | | | | | | | | | | | |
| - | | | | | | | | | | | |
| Grant | **113.41** | 113.41 | 113.41 | 113.41 | 113.41 | 113.41 | 113.41 | 113.41 | 113.41 | 113.41 | 113.41 |
| - | | | | | | | | | | | |
| Profit & Loss | | | | | | | | | | | |
| Opening Balance | - | - | 9.78 | 25.59 | 44.70 | 68.36 | 97.50 | 132.51 | 174.53 | 224.81 | 284.22 |
| | | | | | | | | | | | |
| Add: Profit after tax | - | 9.78 | 15.81 | 19.12 | 23.65 | 29.14 | 35.01 | 42.03 | 50.27 | 59.41 | 69.05 |
| Total | - | 9.78 | 25.59 | 44.70 | 68.36 | 97.50 | 132.51 | 174.53 | 224.81 | 284.22 | 353.27 |
| Secured Loan From Bank | 0.00 | - | - | - | - | - | - | - | - | - | - |
| W. Capital Loan | - | 6.71 | 8.52 | 10.13 | 11.63 | 13.25 | 14.98 | 17.10 | 19.68 | 22.05 | 24.31 |
| Current Liability | - | 10.60 | 11.70 | 13.18 | 14.76 | 16.49 | 18.31 | 20.28 | 22.35 | 24.53 | 26.94 |
| | | | | | | | | | | | |
| **Total ( A )** | **191.25** | **218.34** | **237.05** | **259.26** | **285.99** | **318.49** | **357.04** | **403.17** | **458.09** | **522.05** | **595.76** |
| | | | | | | | | | | | |
| **ASSETS** | | | | | | | | | | | |

| Particulars | Y0 | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fixed Assets** | | | | | | | | | | | |
| Gross Block | 180.01 | 180.01 | 171.64 | 163.27 | 154.89 | 146.52 | 138.15 | 129.78 | 121.40 | 113.03 | 104.66 |
| Less : Depreciation | - | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 |
| Net Block | 180.01 | 171.64 | 163.27 | 154.89 | 146.52 | 138.15 | 129.78 | 121.40 | 113.03 | 104.66 | 96.29 |
| | | | | | | | | | | | |
| P&P | 9.00 | 8.10 | 7.20 | 6.30 | 5.40 | 4.50 | 3.60 | 2.70 | 1.80 | 0.90 | - |
| Contingencies | 0.00 | - | - | - | - | - | - | - | - | - | - |
| | | | | | | | | | | | |
| **Current Assets** | | | | | | | | | | | |
| Sundry Debtor | - | 11.57 | 13.74 | 15.80 | 18.06 | 20.52 | 23.10 | 25.94 | 29.01 | 32.37 | 35.99 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| ***Closing Stock*** | | | | | | | | | | | |
| Closing Stock FG | - | 4.28 | 5.19 | 6.04 | 6.85 | 7.46 | 8.40 | 9.41 | 10.81 | 12.00 | 12.60 |
| Closing Stock RM | - | 3.70 | 4.12 | 4.84 | 5.35 | 6.18 | 6.78 | 7.74 | 8.78 | 9.56 | 10.75 |
| | | | | | | | | | | | |
| | | 7.98 | 9.31 | 10.88 | 12.20 | 13.64 | 15.18 | 17.15 | 19.58 | 21.56 | 23.35 |
| | | | | | | | | | | | |
| Cash & Bank Balance | 2.24 | 19.05 | 43.53 | 71.38 | 103.81 | 141.68 | 185.39 | 235.98 | 294.66 | 362.56 | 440.13 |
| (Including Cash Credit Limit) | | | | | | | | | | | |
| | | | | | | | | | | | |
| **Total ( B )** | **191.25** | **218.34** | **237.05** | **259.26** | **285.99** | **318.49** | **357.04** | **403.17** | **458.09** | **522.05** | **595.76** |

## 5.2.9 Financial Indicators

### A. Return on Capital Employed (RoCE) or Return on Equity (RoE) and Payback Period

| Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Net Profit | 9.78 | 15.81 | 19.12 | 23.65 | 29.14 | 35.01 | 42.03 | 50.27 | 59.41 | 69.05 |
| | | | | | | | | | | |
| Average net profit | 35.33 | | | | | | | | | |
| Total Project cost | 191.25 | | | | | | | | | |
| | | | | | | | | | | |
| **ROCE (without grant)** | **18.47** | | | | | | | | | |
| | | | | | | | | | | |
| **Payback Period (without Grant)** | **7 Yrs 4 month** | | | | | | | | | |
| | | | | | | | | | | |
| **Payback Period (with Grant)** | **4 Years 4 months** | | | | | | | | | |

### B. Net Present Value (NPV)

| **Particular** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** | **Y7** | **Y8** | **Y9** | **Y10** |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Profit after Tax & Diivdend | 9.78 | 15.81 | 19.12 | 23.65 | 29.14 | 35.01 | 42.03 | 50.27 | 59.41 | 69.05 |
| | | | | | | | | | | |
| Add: Deprication | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 |
| Add. Preliminary exp Written off | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| | | | | | | | | | | |
| Net Cash Accrual (A) | 19.05 | 25.08 | 28.39 | 32.93 | 38.41 | 44.28 | 51.30 | 59.55 | 68.68 | 78.32 |
| | | | | | | | | | | |
| PV Factor @ 10 % | 0.91 | 0.83 | 0.75 | 0.68 | 0.62 | 0.56 | 0.51 | 0.47 | 0.42 | 0.39 |
| | | | | | | | | | | |
| Disc Cash Flow | 17.32 | 20.73 | 21.33 | 22.49 | 23.85 | 25.00 | 26.33 | 27.78 | 29.13 | 30.20 |
| | | | | | | | | | | |
| Total Discounted Cash Flows | 244.14 | | | | | | | | | |
| | | | | | | | | | | |
| Present Value of Outflow | 191.25 | | | | | | | | | |
| | | | | | | | | | | |
| **NPV (without grant)** | **52.89** | | | | | | | | | |

### C. Internal Rate of Return (IRR)

| Particular | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Profit after Tax & Diivdend | 9.78 | 15.81 | 19.12 | 23.65 | 29.14 | 35.01 | 42.03 | 50.27 | 59.41 | 69.05 |
| | | | | | | | | | | |
| **Add**: Deprication | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 |
| Add: Preliminary expense written off | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| | | | | | | | | | | |
| Net Cash Accrual (A) | 19.05 | 25.08 | 28.39 | 32.93 | 38.41 | 44.28 | 51.30 | 59.55 | 68.68 | 78.32 |
| | | | | | | | | | | |
| Present Value Equivalent @ 14.75% | 0.87 | 0.76 | 0.66 | 0.58 | 0.50 | 0.44 | 0.38 | 0.33 | 0.29 | 0.25 |
| Presnt Value of Future Inflows | 16.60 | 19.05 | 18.79 | 18.99 | 19.31 | 19.40 | 19.59 | 19.81 | 19.92 | 19.79 |
| Operating Net Cash Inflow | 191.25 | | | | | | | | | |
| | | | | | | | | | | |
| Present Capital Outflow | 191.25 | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| **IRR Without Grant** | **14.75** | | | | | | | | | |

### D. Break Even Point (BEP)

| Particulars | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Net Profit | 9.78 | 15.81 | 19.12 | 23.65 | 29.14 | 35.01 | 42.03 | 50.27 | 59.41 | 69.05 |
| Fixed Cost | 30.94 | 32.16 | 33.41 | 34.71 | 36.07 | 37.51 | 39.04 | 40.69 | 42.38 | 44.14 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Contribution | 40.72 | 47.97 | 52.53 | 58.36 | 65.21 | 72.51 | 81.07 | 90.96 | 101.79 | 113.19 |
| | | | | | | | | | | |
| **Fixed Cost** | | | | | | | | | | |
| Fixed Expenses | 21.07 | 22.12 | 23.23 | 24.39 | 25.61 | 26.89 | 28.23 | 29.64 | 31.12 | 32.68 |
| TL Interest | - | - | - | - | - | - | - | - | - | - |
| WC Interest | 0.60 | 0.77 | 0.91 | 1.05 | 1.19 | 1.35 | 1.54 | 1.77 | 1.98 | 2.19 |
| Depreciation | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 | 8.37 |
| P&P exp | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| | | | | | | | | | | |
| BEP | 76% | 67% | 64% | 59% | 55% | 52% | 48% | 45% | 42% | 39% |
| | | | | | | | | | | |
| **Avg BEP** | **54.67%** | | | | | | | | | |

### E. Debt Service Coverage Ratio (DSCR) – *Not Applicable, as no Term Loan is sought by project*

## F. Sensitivity Analysis

**Analysis Note: O**verall the project is seen to be highly resilient in all scenarios.

**All Figures in Rs. Lakh**

| Quantity Variation (+10%) | Year-1 | Year-2 | Year-3 | Year-4 | Year-5 | Year-6 | Year-7 | Year-8 | Year-9 | Year-10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Revenue from Sale | 108 | 129 | 148 | 169 | 191 | 214 | 240 | 268 | 298 | 331 |
| Revenue- Service Charges - Rice Milling | 41 | 43 | 49 | 56 | 63 | 71 | 80 | 89 | 99 | 120 |
| Revenue from Weigh Bridge operation | 4 | 5 | 6 | 8 | 9 | 11 | 13 | 16 | 19 | 22 |
| Change in Closing Stock of FG | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total Income | 157 | 177 | 204 | 233 | 264 | 298 | 334 | 374 | 417 | 474 |
| Expenditure | | | | | | | | | | |
| Cost of Material consumed | 95 | 110 | 126 | 143 | 162 | 182 | 204 | 228 | 253 | 281 |
| Fixed Cost (Excl. of Depreciation, Amortization and Interest) | 21 | 22 | 23 | 24 | 26 | 27 | 28 | 30 | 31 | 33 |
| Variable Cost | 16 | 18 | 20 | 22 | 24 | 27 | 29 | 31 | 33 | 34 |
| Total Operational Expenses | 132 | 150 | 169 | 190 | 212 | 236 | 261 | 288 | 317 | 348 |
| **Net Income** | **24** | **28** | **35** | **43** | **52** | **62** | **73** | **86** | **100** | **126** |

| Cost Variation (+10%) | Year-1 | Year-2 | Year-3 | Year-4 | Year-5 | Year-6 | Year-7 | Year-8 | Year-9 | Year-10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Revenue from Sale | 98 | 117 | 134 | 153 | 174 | 195 | 218 | 243 | 271 | 301 |
| Revenue- Service Charges - Rice Milling | 37 | 43 | 49 | 56 | 63 | 71 | 80 | 89 | 99 | 109 |
| Revenue from Weigh Bridge operation | 4 | 5 | 6 | 8 | 9 | 11 | 13 | 16 | 19 | 22 |
| Change in Closing Stock of FG | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total Income | 143 | 166 | 190 | 218 | 247 | 278 | 312 | 350 | 390 | 432 |
| Expenditure | | | | | | | | | | |
| Cost of Material consumed | 95 | 110 | 126 | 143 | 162 | 182 | 204 | 228 | 253 | 281 |
| Fixed Cost (Excl. of Depreciation, Amortization and Interest) | 23 | 24 | 26 | 27 | 28 | 30 | 31 | 33 | 34 | 36 |
| Variable Cost | 17 | 20 | 22 | 24 | 27 | 29 | 32 | 34 | 36 | 38 |
| Total Operational Expenses | 136 | 154 | 173 | 194 | 217 | 241 | 267 | 294 | 323 | 354 |
| **Net Income** | **7** | **12** | **17** | **23** | **30** | **37** | **46** | **56** | **67** | **78** |

| Quantity Variation (-10%) | Year-1 | Year-2 | Year-3 | Year-4 | Year-5 | Year-6 | Year-7 | Year-8 | Year-9 | Year-10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Revenue from Sale | 88 | 105 | 121 | 138 | 156 | 175 | 196 | 219 | 244 | 271 |
| Revenue- Service Charges - Rice Milling | 33 | 39 | 44 | 50 | 57 | 64 | 72 | 80 | 89 | 99 |
| Revenue from Weigh Bridge operation | 4 | 5 | 6 | 8 | 9 | 11 | 13 | 16 | 19 | 22 |
| Change in Closing Stock of FG | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total Income | 130 | 150 | 172 | 197 | 223 | 251 | 282 | 316 | 353 | 391 |
| Expenditure | | | | | | | | | | |
| Cost of Material consumed | 78 | 90 | 103 | 117 | 132 | 149 | 167 | 186 | 207 | 230 |
| Fixed Cost (Excl. of | 21 | 22 | 23 | 24 | 26 | 27 | 28 | 30 | 31 | 33 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Depreciation, Amortization and Interest) | | | | | | | | | | |
| Variable Cost | 16 | 18 | 20 | 22 | 24 | 27 | 29 | 31 | 33 | 34 |
| Total Operational Expenses | 115 | 130 | 146 | 164 | 182 | 203 | 224 | 246 | 271 | 297 |
| **Net Income** | **15** | **20** | **26** | **33** | **41** | **49** | **59** | **70** | **82** | **95** |

| Cost Variation (-10%) | Year-1 | Year-2 | Year-3 | Year-4 | Year-5 | Year-6 | Year-7 | Year-8 | Year-9 | Year-10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Revenue from Sale | 98 | 117 | 134 | 153 | 174 | 195 | 218 | 243 | 271 | 301 |
| Revenue- Service Charges - Rice Milling | 37 | 43 | 49 | 56 | 63 | 71 | 80 | 89 | 99 | 109 |
| Revenue from Weigh Bridge operation | 4 | 5 | 6 | 8 | 9 | 11 | 13 | 16 | 19 | 22 |
| Change in Closing Stock of FG | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total Income | 143 | 166 | 190 | 218 | 247 | 278 | 312 | 350 | 390 | 432 |
| Expenditure | | | | | | | | | | |
| Cost of Material consumed | 78 | 90 | 103 | 117 | 132 | 149 | 167 | 186 | 207 | 230 |
| Fixed Cost (Excl. of Depreciation, Amortization and Interest) | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 27 | 28 | 29 |
| Variable Cost | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 29 | 31 |
| Total Operational Expenses | 111 | 126 | 142 | 159 | 177 | 197 | 218 | 240 | 264 | 290 |
| **Net Income** | **32** | **40** | **49** | **59** | **69** | **81** | **94** | **109** | **125** | **143** |

# Key Points for Information

| S. No. | Financial Indicator | SMART's Benchmark | Project's Financial Analysis (with grant) |
|---|---|---|---|
| A | Return on Capital Employed (RoCE) or Return on Equity (RoE) | RoCE or Return Equity for the project shall be more than 10% to consider the project is financially viable | **ROCE: 18.47%** |
| B | Net Present Value (NPV) | With a discount rate of 10% and a span of 7 operational years, the NPV should be positive to consider that the project is financially viable. | **Rs. 52.89 Lakh** |
| C | Internal Rate of Return (IRR) | The project internal rate of return shall be more than 10% as per the current financial scenario of the country, If the project IRR is more than 10% than project is feasible for investment. | **14.75 %** |
| D | Pay Back Period (Project/ Equity) | The Pack Back Period (Project/ Equity) shall be less than 5 years to consider that it is financially viable | **4 Yrs 4 Months** |
| E | Break Even Point (BEP) | The average breakeven percentage shall be more than 50% to consider that it is financially viable | **54.67 %** |
| F | Debt Service Coverage Ratio (DSCR) | DSCR shall be more than 1.5 for better performing project. | **NA**<br>No TL sought |
| G | Sensitivity Analysis | The robustness of the proposal can be been checked through a sensitivity analysis based on unique application of +10% and -10% variations on the costs and quantum assumed for developing the proposal (4 scenarios derived from such analysis shall be represented). | **Project shows strong resilience in all cases.** |

# Section 6 : Assumptions

***6.1 Key Assumptions***

**1. Basic Information of the business/facility**

| No. | Particulars | details |
|---|---|---|
| 1. | Business activity/Facility | Rice Milling |
| 2. | Area Required for establishing facility | 0.50 Acre |
| 3. | Capacity of Facility | 3 TPH |
| 4. | No. of hours, the facility will be operational in a day | 10 Hours per Day |
| 5. | Capital investment for machinery and equipment's (as per quotation) | Rs. 84.37 Lakh |
| 6. | Investment on civil and construction component (As per estimates): | Rs. 95.64 Lakh |
| I | How many days, the facility will be operational in a year | Avg. 182 Days<br><br>(**Note:** The total working days in a year have been considered at 250 days (maximum). This is done as per general operating pattern of rice mills in the project region) |

**2. Details of revenue generated through above facility**

| No. | Finished product | Unit | Whole price /Rs. per MT (Y1) | Retail price /- Rs……per Unit |
|---|---|---|---|---|
| 1 | Polished-Length graded Rice | MT | 44,000.00 | - |
| 2 | Husk | MT | 2,000.00 | - |
| 3 | Broken | MT | 20,000.00 | - |
| 4 | Bran | MT | 10,000.00 | - |
| 5 | JW Services Charges | MT | 1100.00 | - |

**Note:** Currently, the business model considers only Wholesale Price in its trade operations. The Retail Price, in general, may be considered as 20-25% higher.

**3. Expenditure on raw material**

| No. | Commodity | Procurement Price Rs. Per MT | Remark |
|---|---|---|---|
| 1 | Paddy (Sri-Ram) | 23,100/ MT | - |

**4. Expenditure on salary of management staff**

| No. | Designation: | No. of Staff: | Salary Rs. Per Month: | Remark |
|---|---|---|---|---|
| 1 | Accountant | 1 | Rs. 8000/- Per Month | The Company already has functional management staff. Since this is expansion project, most of the existing staff will be handling the activities. Only new staff that will be recruited is considered. |
| 2 | Admin Staff | 1 | Rs. 8000/- Per Month | |
| 3 | Security Staff | 1 | Rs. 6000/- Per Month | |

**5. Expenditure on remuneration of labor**

<table>
<tr><th>No.</th><th>Type of workers</th><th>No.</th><th>Wages Rs per day/ Month</th><th>Remark</th></tr>
<tr><td>1</td><td>Skilled</td><td>7</td><td>Rs. 8,000/- To Rs. 18,000/- Per Month</td><td>
<table>
<tr><th>Designation</th><th>Nos.</th><th>Salary (In Rs. Per Month)</th></tr>
<tr><td>Factory Head</td><td>1</td><td>18,000.00</td></tr>
<tr><td>Plant Operators</td><td>2</td><td>12,000.00</td></tr>
<tr><td>Weigh Bridge Operator</td><td>1</td><td>9,000.00</td></tr>
<tr><td>Maintenance Engineer</td><td>1</td><td>8,000.00</td></tr>
<tr><td>Storekeeper</td><td>1</td><td>8,000.00</td></tr>
</table>
The above are ‘salaried’ skilled employees.
</td></tr>
<tr><td>2</td><td>Semi skill</td><td>-</td><td>-</td><td></td></tr>
<tr><td>3</td><td>Un-skilled</td><td>6</td><td>Rs. 300 per Day</td><td>Unskilled labour required in First year is 6 persons. This is variable and increases in following year as capacity utilization increases. The chart below gives details of Year-wise unskilled labour strength of proposed plant.</td></tr>
</table>

| | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Unskilled Labour-Polishing Plant | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 12 | 12 | 12 |

**6. Expenditure on rent/lease of plot / sub-project site**

| No | Component | Land lease Rent | Remark |
|---|---|---|---|
| 1 | land rent | Rs.12000/Year | - |

**7. Expenditure on electricity charges required for facility**

| No | Cumulative HP for all Machineries and equipment's | No. of Units Consumption Per Hour: | Per Unit Cost Rs…..per unit | Remark |
|---|---|---|---|---|
| 1 | 88 HP | 56.32 Kw PER HR. | Rs. 10/-Kwh | - |

**8. Maintenance cost facilities**

| No | Component | Detail | Remark |
|---|---|---|---|
| 1 | Maintenance of machinery, building, equipment etc, | 1. Fixed: 1% of P&M and Civil<br>2. Variable: Rs. 300 per Day | - |

**9. Other consumables required for production**

| No. | Name of Consumables | Unit | Total Unit | Cost Per Unit (Rs) | Remark |
|---|---|---|---|---|---|
| No other consumables separately required | | | | | |

**10. Expenditure on packaging material**

| No. | Type of Material | Size of Packaging material | Unit | Total unit | Cost Per Unit (Rs.) | Remark |
|---|---|---|---|---|---|---|
| 1 | PP Bags | 25 KG (1 bag) | KG | 375,000 KG (15000 bags)<br><br>'In Y1' | 12 Rs. Per Bag | |

**11. Expenditure on storage/warehouse for product**

| No. | Crop Name: | Storage Duration (month) | Storage Cost Per Quintal Per Month: | remark |
|---|---|---|---|---|
| Storage area in the Project building is used by promoters. No separate warehousing is considered as warehouse space in the rice mill premises. Warehouse may be rented by user farmers and buyers directly and hence is not considered under the project | | | | |

**12. Other Expenditure**

| No. | Component | Rs/per month | remark |
|---|---|---|---|
| Please refer section **"5.2.5.7. Consolidated OPEX Schedule"** for details | | | |

**6.2 Other assumptions**

1. Year wise participation of CBO member and Non Members

| Services Users and RM Sellers | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Members | 910 | 1092 | 1310 | 1572 | 1886 | 2263 | 2716 | 3259 | 3911 | 4693 |
| Non-Members | 2000 | 1818 | 1600 | 1338 | 1024 | 647 | 194 | 0 | 0 | 0 |

**Note:** Apart from the CBO members, there are over 2000 non-members who have been using the company's existing plant services. It is expected that over the next 10 years, the CBO membership will increase by 20% annually.

3. Production assumption of various years

| Services Users and RM Sellers | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Members | 910 | 1092 | 1310 | 1572 | 1886 | 2263 | 2716 | 3259 | 3911 | 4693 |
| Non-Members | 2000 | 1818 | 1600 | 1338 | 1024 | 647 | 194 | 0 | 0 | 0 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| **Production - Paddy (MT)** | **Y1** | **Y2** | **Y3** | **Y4** | **Y5** | **Y6** | **Y7** | **Y8** | **Y9** | **Y10** |
| | | | | | | | | | | |
| Members | 5034 | 5489 | 6034 | 6689 | 7474 | 8417 | 9549 | 10034 | 10034 | 10034 |
| Non-Members | 5000 | 4545 | 4000 | 3345 | 2560 | 1618 | 485 | 0 | 0 | 0 |
| | | | | | | | | | | |
| **Total Production (Paddy)** | **10034** | **10034** | **10034** | **10034** | **10034** | **10034** | **10034** | **10034** | **10034** | **10034** |
| | | | | | | | | | | |
| **Marketable Surplus - Paddy (70%)** | **7024** | **7024** | **7024** | **7024** | **7024** | **7024** | **7024** | **7024** | **7024** | **7024** |
| | | | | | | | | | | |
| **Requirement of Project (MT)** | **3750** | **4125** | **4500** | **4875** | **5250** | **5625** | **6000** | **6375** | **6750** | **7125** |

4. Average depreciation – machinery, building, IT infra.

| Depreciation | Bldg. | P&M and MFA |
|---|---|---|
| SLM | 3.17% | 6.33% |
| WDV | 10% | 15% |

5. **Interest rate on long and short term loans -** No Term Loan is sought. Working Capital loan (unsecured loan) is envisaged from project promoters @ 9% P.A. post operationalization of the project.

6. **Insurance –** Insurance @ 0.5% of the capital cost of Building, Plant and Machinery, Furniture & Fixtures and IT Infrastructure is considered.

7. **Facilitation charges- bulk marketing:** The project adopts mixed model currently- Job-work and captive operations. For Job-work model, no separate sales or marketing facilitation is charged as farmers/farmer groups may sell their product directly. In this regards the project will provide them with healthy leads without any brokerage/ commission.

8. **Income tax:** 30%

**9. Other key assumptions**

**9.1. Capacity of Plant: 3 TPH**

**9.2. Working Model:**

| | |
|---|---|
| Job Work Services | 90% capacity reserved |
| Captive Operations | 10% capacity reserved |

**9.3. Capacity Utilization**

| Capacity Utilization | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| JW Services | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 85% | 90% | 95% |
| Captive Operations | 50% | 55% | 60% | 65% | 70% | 75% | 80% | 85% | 90% | 95% |

**9.4. Grade Output (Polishing-Grading)**

| Grade Output | Percentage |
|---|---|
| Polished Rice | 50% |
| Husk | 20% |
| Broken | 20% |
| Bran | 8% |

**9.5. Working Days**

| Working Days | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| No of days of operation (JW Services) | 113 | 124 | 135 | 146 | 158 | 169 | 180 | 191 | 203 | 214 |
| No of days of operation (Captive Operations) | 13 | 14 | 15 | 16 | 18 | 19 | 20 | 21 | 23 | 24 |

**9.6. Stock**

| | |
|---|---|
| Closing Stock- Raw Material | 15 days |
| Closing Stock- Finished Goods | 15 days |

### 9.7. Rice Purchase Price (Jai-Sri Ram Variety) in Rs. Per MT

| Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|
| 23,100.00 | 24,260.00 | 25,470.00 | 26,740.00 | 28,080.00 | 29,480.00 | 30,950.00 | 32,500.00 | 34,130.00 | 35,840.00 |

### 9.8. Job Work Charges (Polishing-Grading) in Rs. Per MT

| Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|
| 1,100 | 1,155 | 1,213 | 1,274 | 1,338 | 1,405 | 1,475 | 1,549 | 1,626 | 1,707 |

### 9.9. Inflation : 5% annum

### 9.10. Current Liability: 1 Month

### 9.11. Sundry Debtors: 1 Month

### 9.12. Sales Price

| Sales Price (in Rs. Per MT) | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Rice | 44,000.00 | 46,200.00 | 48,510.00 | 50,940.00 | 53,490.00 | 56,160.00 | 58,970.00 | 61,920.00 | 65,020.00 | 68,270.00 |
| Husk | 2,000.00 | 2,100.00 | 2,210.00 | 2,320.00 | 2,440.00 | 2,560.00 | 2,690.00 | 2,820.00 | 2,960.00 | 3,110.00 |
| Broken | 20,000.00 | 21,000.00 | 22,050.00 | 23,150.00 | 24,310.00 | 25,530.00 | 26,810.00 | 28,150.00 | 29,560.00 | 31,040.00 |
| Bran | 10,000.00 | 10,500.00 | 11,030.00 | 11,580.00 | 12,160.00 | 12,770.00 | 13,410.00 | 14,080.00 | 14,780.00 | 15,520.00 |

# Section 7

## SOCIAL ACTION PLAN[1]

**1. Name of Nodal Person of CBO for implementation and reporting of Social Action Plan :**

| Particulars | Yes/ No | If Yes, Specify |
|---|---|---|
| **1. Information of Sub-project Implementation Area** | | |
| Does the subproject area falls under Scheduled V[2] (Tribal) Area? | No | |
| Does the subproject area have Particularly Vulnerable Tribal Groups[3] {PVTGs}? | No | |
| Does the subproject falls under Left Wing Extremism[4]area {LWE}? | No | |
| Does the subproject districts falls under Aspirational District[5]? | No | |
| **2. Compliance with Negative List** | | |
| Does this Subproject involve compulsory acquisition of private land? | No | |
| Does this Subproject involve purchase of private land? | No | |
| Does this Subproject involve physical relocation of people, houses, shops, buildings etc.? | No | |
| Does this Subproject involve closure of access to common routes, facilities and resources? | No | |
| Does this Subproject involve activities that adversely impact local livelihoods and businesses? | No | |
| Does this Subproject cover Indigenous Peoples villages/territories' (villages with scheduled tribe population and designated Schedule V areas) where free, prior, and informed consultations have not been done? | No | |
| Does this Subproject cover Indigenous Peoples villages/territories (Villages with scheduled tribe population and Schedule V areas) where evidence for broad community support has not been obtained or is not available? | No | |
| Does this Subproject involve any activities that could negatively affect the social, cultural and religious beliefs, practices and livelihoods of indigenous peoples (tribal people)? | No | |
| Does this Subproject involve activities that could adversely affect cultural property, including archaeological and historical sites? | No | |
| Does this Subproject involve any activities that could potentially use forced labour[6] or child labour[7] and other labour-exploitative practices? | No | |
| Does this Subproject involve deep excavation works, hazardous chemicals, explosives, submergence, dangerous sites which threaten the health and safety of workers and local communities? | No | |
| Does the subproject involves any hazardous work for labours during construction work? | No | |
| Does this Subproject involve any activities that could harm the health, safety and wellbeing of women, girls and children? | No | |
| **3. Sub Project Implementation** | | |
| **3.1 Measures for Social Inclusion** | | |
| Whether CBO will take measures for the inclusion of vulnerable households, including SC, ST, Women Headed household, tenant farmers, returnee migrants and other vulnerable workers in Subproject activities? | Yes | Improve their capacity building |
| **3.2 Tribal Development Plan (For the Subprojects from Schedule V Area)** | | |
| Whether free, prior and informed consultations with Tribal community has been conducted? | NA | |

[1] ***Following the Environment and Social Management Framework of the SMART https://www.smart-mh.org/smart/aboutsmart***

***2 List of tribal districts & blocks (Scheduled V Area) is available at***
***https://cdnbbsr.s3waas.gov.in/s3c8758b517083196f05ac29810b924aca/uploads/2019/11/2019112132.pdf***

***3 Particularly Vulnerable Tribal Groups - Katkaria (Kathodia), Kolam, Maria Gond***

***4 Left Wing Extremism districts Chandrapur, Gadchiroli, Gondia***

***5 Aspirational Districts - Nandurbar, Washim, Gadchiroli, Osmanabad***

***6 Forced labor means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty***

***7 A child under the age of 14 will be considered as child labor. A child over the minimum age of 14 and under the minimum age of 18 may be employed or engaged in connection with the Project only under the following specific conditions: The work is not hazardous in nature and is likely to jeopardize the child's health, safety, or morals. An appropriate risk assessment is conducted prior to work commencing. The Borrower conducts regular monitoring of health, working conditions, hours of work, and the likelihood of potential threat to the child's overall development.***

| | | |
|---|---|---|
| Whether the consent of Tribal Community for Project Implementation has been obtained? | NA | |
| Whether the access and benefits of project activities/facilities to Tribes will be ensured? | NA | |
| **3.3 Land** | | |
| Whether own 7/12 extract or registered Lease Agreement for rent/lease of private land for 29 years has been attached? | Yes | Lease Agreement Attached |
| Whether non encroachment certificate of land has been attached ? (by relevant authority like DIU Head/Grampanchayat/Talathi etc.) | Yes | Non-Encroachment certificate attached |
| **3.4 Labour mitigation measures during civil & Implementation work** | | |
| Whether CBO will take measures for safeguarding health and safety facilities for workers (when camps are set up)? (e.g. enough space for living, hygiene facility, drinking water. Separate washroom for male & female, crèche/shed for children, training/awareness on The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, mechanism to address sexual violence etc.) | Yes | Drinking water, first aid facility, Labour quarter & other facilities available |
| Whether CBO will take measures to address risks related with influx of migrant labour from outside? (e.g. measures to prevent crime, communicable diseases, gender base violence, child labour, accidents, etc.) | Yes | We are not hiring child labour for our project |
| Whether CBO will take measures to record and address incidents of gender-based violence and sexual harassment? | Yes | CBO will form internal committee |
| **3.5 Measures of Health and Safety** | | |
| Whether CBO will take measures on Community Health and Safety? (e.g. measures to prevent accident, physical injury, sexual exploitation of community member, etc.) | Yes | . Measures to prevent accident & physical injury |
| Whether CBO will take measures on Occupational Health and Workers Safety? (e.g. measures to prevent on site accident, physical injury, sexual exploitation of workers, etc.) | Yes | Measures to prevent on-site accident, physical injury |
| Whether CBO will take Safety measures on COVID-19. (Social distancing, use of Mask, etc.) | Yes | Social distancing & Proper sanitization facility available |

**4. Social Sub-project Targets :**

| Sr. No. | Particulars | Current Status (Baseline of CBO) | Proposed target in the Sub-project |
|---|---|---|---|
| | **Social Inclusion & Gender Integration targets[8] (%)** | | |
| A | Total No. of Farmers/Members | 910 | 1886 by 5th year |
| B | No. of Small and marginal Beneficiaries (& their %) | 662 & 73% | 1603 & 85 % |
| C | No. of Women Shareholders (& their %) | 347 & 38 % | 1037 & 55% |
| D | No. of Women Board of Directors (& their %) | 1 & 20% | 3 & 50% |
| E | No. of Schedule Tribes (& their %) | 129 & 14% | 471 & 25% |
| F | No.of Schedule Caste (& their %) | 114 & 13% | 377 & 20% |
| G | No. of Tenants (& their %) | - | 207 & 11% |
| H | No. of Landless (& their %) | 22 & 2% | 151 & 8% |
| I | No. of Women having land title (7/12) (& their %) | 254 & 28% | 660 & 35% |

***8 As per the Social Inclusion & Gender Strategy of the Project, out of total beneficiary of the project, 80% will be small & marginal farmers, minimum 30% will be Women beneficiary, minimum 6% will be Schedule Tribes, minimum 7% will be Schedule Caste beneficiary. Also CBO should have minimum 20% Women Board of Directors.***

# Section 8

## Environmental Action Plan

The Environmental Action Plan (EAP) will provide guidance to the CBOs in minimization/mitigation of potential environmental risks/impacts of the agricultural and animal husbandry value chain development activities of the subproject. The environmental baseline information for providing suggestions to CBOs for bringing out performance improvements in the activities of the sub project are collected as per the below-mentioned table-

| Sr No. | Agricultural Practices followed in the Subproject | Unit | Current/Baseline Condition in the Subproject | Target to be Achieved by the end of the Subproject |
|---|---|---|---|---|
| **A. For Agriculture Value chain Development Subprojects** | | | | |
| 1. | Average use of fertilizer-NPK | Kg/ha. | 204 | 189.78 |
| 2. | Area in which recommended dose of fertilizers is used | ha. | 228.96 | 212.98 |
| 3. | Area in which fertilizers used is less than recommended | ha. | 152.64 | 141.95 |

| | | | | |
|---|---|---|---|---|
| | dose | | | |
| 4. | Area in which fertilizers used is above the recommended dose | ha. | 381.6 | 354.88 |
| 5. | Area in which Integrated Nutrient Management (INM) is practiced | ha. | 534.24 | 496.84 |
| 6. | Average use of Pesticides, Fungicides and Herbicides | L/ha. | 4.5 | 4.1 |
| 7. | Area in which recommended dose of pesticides is used | ha. | 259.48 | 241.31 |
| 8. | Area in which pesticides used is less than recommended dose | ha. | 137.37 | 128.15 |
| 9. | Area in which pesticides used is above the recommended dose | ha. | 366.66 | 340.99 |
| 10. | Area in which Integrated Pest Management (IPM) is practiced | ha. | 139.41 | 129.65 |
| 11. | Area in which crop residues are burnt | ha. | 228.96 | 212.93 |
| 12. | Area in which crop residue is recycled for preparing Compost, Farm Yard Manure (FYM), etc. | ha. | 473.18 | 440.10 |
| 13. | Area under Organic farming | ha. | 206.10 | 191.63 |
| 14. | Area under GLOBAL Good Agricultural Practice (G.A.P.) | ha. | 77.00 | 83.50 |
| **B. For Animal Husbandry Value chain Development Subprojects** | | | | |
| 15. | Feeding practice- Open Grazing/Semi stall Feeding | - | **N/A** | |
| 16. | Area in which animal manure is used as fertilizer | Kg/ha. | **N/A** | |
| 17. | Animals are Vaccinated/ Non-Vaccinated | - | **N/A** | |
| **C. Valid PUC Certificate for transportation Vehicle-Available/Not-Available** | | - | **N/A** | |

**3. Environmental Safeguards Inclusion Targets for the Subproject**

| Sr No. | Particulars of the Target | Current/Baseline Condition in the Subproject | Target to be Achieved in the Subproject |
|---|---|---|---|
| **1.** | No. of farmers of CBOs trained in IPM and INM practices (and their %)[7] | 0 | 200 (20%) |
| **2.** | No. of IPM and INM demonstrations at the field level given to the CBO members for the subproject related agri-commodities (and their %)[8] | 0 | 300 (30%) |
| **3.** | % of the area of CBOs brought under IPM in the subproject[9] | 0 | 20% |
| **4.** | % of the area of CBOs brought under INM in the subproject[9] | 0 | 20% |
| **5.** | No. of farmers of the CBOs trained in the Climate SMART Technologies/Practices (CSTs)[10] best suited to the given subproject | 0 | 100 |
| **6.** | Number of CSTs Adopted in the Subproject[11] | 0 | 800 (80%) |
| **7.** | Land area (ha.) brought under CSTs in the Subproject[12] | 0 | 80% |

**4. Guidelines for Achievement of the Environmental Safeguards Targets**

1) As per the SMART project's Environmental and Social Management Framework (ESMF) report commendations, none of the subproject activities should fall under Negative (non-eligible) list of the project

activities given in the point no. 3.9, pg no. 48 of the ESMF report. All the subproject activities should be implemented in accordance with the provisions and mitigation measures given in the ESMF report.

2) For requirement of Organic (NPOP- National Programme for Organic Production) and/or GLOBAL Good Agricultural Practice (G.A.P.) group certification, project's financial support of up to 60 % can be availed by the subproject CBOs. The remaining 40 % of certification cost will be required to be raised by the CBOs themselves.

3) All the new machineries to be purchased using project's resources should be energy efficient, vehicles should be Bharat State VI complaint and fuel use efficient, tractors should be Bharat Stage (CEV/TREM) IV – V and above, and hold valid PUC certificate.

# Section 9 : Procurement Plan

**CBO level Procurement plan with Method & Time Schedule for Works,Goods & Consultancy Services**

| Ref No. | Contract (Description) | Stage : Planned / Actual / Revised | Estimated Cost (Rs. In. Lakh) | | | Procurement Method | Review by PCMU/ PIUs (Prior/ Post) | Expected Bid-Opening Date) | Actual Contract Date ( format ) (i.e.1-Dec-14) | Actual Contract Amount (Rs.Lakh) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | No of Contracts | Unit Cost | Total Cost | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **Works** | | | | | | | | | | | |
| 1 | Civil Works for Rice Mill | Actual | 1 | 95.64 | 95.64 | Tender/ Other Approved Public Procurement Method (like RFQ) | Prior- Feb 2022 Post- Mar 2022 | Mar 2022 | Feb 2022 | 95.64 | |
| **Goods & Equipment** | | | | | | | | | | | |
| 2 | Plant & Machinery- Rice Mill | Actual | 1 Set | 84.37 | 84.37 | Tender/ Other Approved Public Procurement Method (like RFQ) | Prior- Jul 2022 Post- Aug 2022 | Aug 2022 | Jul 2022 | 84.37 | |

***List of documents to be presented along with FPP***

| Sr. No. | Document | Attached (Yes/No) | Remarks, if not attached |
|---|---|---|---|
| 1 | Registration certificate of organization | Yes | |
| 2 | List of members/shareholder of the organization (As per the record from the Registrar of Companies office or the certificate of competent authority) | Yes | |
| 3 | Audit report | Yes | |
| 4 | CBO Bank statement | Yes | |
| 5 | KYC of Applicant Firm (PAN and GST Certificate Copy) | Yes | |
| 6 | Resolution of board of directors - Approval to DPR | Yes | |
| 7 | Land ownership document / land lease agreement | Yes | |
| 8 | Propose site map presenting road access and surrounding | Yes | |
| 9 | No Objection Certificate of Panchyat for setting up of business activities | Yes | |
| 10 | Forward linkages - MoUs with Buyers | Yes | |
| 11 | Backward linkages – MoUs for produce aggregation - MoUs with farmers groups/ SHGs/ federations/FPC/other CBOs etc. | NA | |
| 12 | Please attach authorized quotations- machineries & equipment's /estimate-construction of building / pack house | Yes | |
| 13 | Water/ electricity connection (proof) | Yes | |
| 14 | Letter of intent from bank/financial institution for financing the project | NA | |
| 15 | License/other | No | Applied |