**Model Sub Project Plan (SPP)**

**Component B of National Programme for Dairy Development (NPDD) scheme -**

**‘Dairying through Cooperatives’**

***(also known as “Project for the Dairy Development” in JICA’s document)***

**XYZ Participating Institution (PI)**

**September 2021**

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**Project at a Glance**

|  |  |  |
| --- | --- | --- |
| **Participating Institution (PI)** | **:** | **XYZ** |

1. **Eligibility Criteria for PI**

|  |  |  |
| --- | --- | --- |
| **I** | **Financial** | **Remarks** |
| **A** | **General Financial criteria (applicable for all PIs)** |  |
| 1 | Audit of accounts should be up-to-date and the auditor’s observations should not contain any adverse opinion or disclaimer. | Up to date, no adverse opinion  (FY 2019-20) |
| 2 | PI should not have any over-dues to any financial institution. | No overdues |
| 3 | PI should not be in a default to any bank/ financial institution. | No default to any financial institution |
| 4 | PI needs to contribute its share in the project. However, PI does not have adequate resources to contribute its share, State Government may offer necessary grant. | PI will contribute its share under the project |
| **B** | **Additional Financial Criteria (applicable for PIs availing loan under the project)** |  |
| 1 | PI should have positive net worth. | Yes  (FY 2019-20) |
| 2 | All outstanding dues to producer members should not exceed four payment periods. | Yes. Does not exceed one payment cycle |
| 3 | The financial returns of the project:  Return on Investment (ROI) of 10% (minimum) and Debt Service Coverage Ratio (DSCR) of 1.5 times (minimum) | Yes  ROI – \_\_\_\_%  DSCR – \_\_\_\_ times |
| 4 | The loan to be secured through collateral security, which should be minimum 1.5 times of the loan amount in terms of mortgage of immovable assets and hypothecation of movable assets. In case of any shortfall, State Government guarantee will be required. | Collateral security \_\_\_ times the loan amount |
| **II** | **Institutional/ Governance** |  |
| 1 | PI should have a duly constituted Governing Body such as Board of Directors/Management Committee as applicable to the legal form of the PI. | Yes, Board of Directors as applicable under the State Cooperative Societies Act |
| 2 | PI should have a full time Chief Executive/Managing Director (or equivalent) and adequate number of qualified technical and managerial personnel at key positions. | Yes.  The PI is headed by MD, having adequate technical and managerial personnel |
| 3 | PI is willing to amend Bye-laws. | Yes |
| 4 | Fixed/ Undisturbed tenure for senior/ key management personnel including Managing Director/Chief Executive of PI. | Yes.  Agreed |
| 5 | Board of the PI should nominate one expert each in the field of finance, Dairy Technology and marketing as independent directors. | Yes |
| **III** | **Technical** |  |
| **A** | **Strengthening Milk Procurement Infrastructure:** |  |
| 1 | PI should have its own milk processing facilities or have a forward linkage with an existing milk processing facility. | Yes |
| 2 | PI should have the land/ premises for setting up DCS building and housing Bulk Milk Coolers free from any encumbrances. | Yes. Own/leased land and is encumbrance free |
| 3 | PI already has in place IT based reporting and monitoring systems.\* | Yes |
| 4 | PI should be capable in organising producers’ institutions, maintaining transparency in the processes of milk collection at village level, milk quality testing, timely payments to milk producers and grievance redressal system in place. | Yes |
| **B** | **Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed):** |  |
| 1 | PI should have required environmental/ statutory clearances for setting up of plants. | Yes (encumbrance free land)  PI will ensure required environmental/ statutory clearances |
| 2 | PI should have its own land/ long term lease, free from encumbrances, in case of setting up of new plant or expansion of existing plant. In case of lease, requisite No Objection Certificate from the concerned authority for mortgage to NDDB would have to be obtained. | Yes (own land at existing location for milk processing plant & lease land for CFP) |
| **C** | **Support for Marketing Infrastructure:** |  |
| 1 | PI should have own milk processing facility and marketing network for sale of liquid milk & milk products. | Yes |
| **D** | **Support for ICT Infrastructure:** |  |
| 1 | PI should have its own milk processing facilities or have a forward linkage with an existing milk processing facility. | Yes |
| 2 | PI should have competent manpower to manage ICT Infrastructure and applications. | Yes |
| **E** | **Productivity Enhancement** |  |
| **E1** | **Nutritional interventions for PE:** |  |
| 1 | PI will identify/recruit technical manpower exclusively for the project. | Yes |
| 2 | PI has its own plants for manufacturing and supply of cattle feed (pregnancy feed, calf starter & calf growth meal), mineral mixture and fertility supplement or have an assured tie up for sourcing these products. | Yes |
| 3 | PI has implemented Animal nutrition activities (Ration Balancing Programme (RBP)/Fodder development) under NDP I successfully.\* | Yes |
| 4 | PI will create corpus from the beginning, for sustainability of the activity.\* | Yes, Agreed |
| **E2** | **Fodder Development:** |  |
| **I** | **Fodder Seed Production and distribution/Fodder Conservation and green fodder enhancement and fodder technology demonstration:** |  |
| 1 | PI should have a network of village level farmers organisations such as village Dairy Cooperative Societies, Milk Producers’ Institutions and Self Help Groups (SHGs) and have an experience in conducting demonstrations for technology transfer at field level. | Yes |
| 2 | PI should have capacity to formulate and implement a sound plan for demonstrations. | Yes |
| 3 | PI has prior experience in this area.\* | Yes |
| **II** | **Crop residue management** |  |
| 1 | PI must have the capacity to formulate and implement a sound plan for crop residue enrichment and densification. | Yes |
| 2 | PI has prior experience in this area.\* | Yes |
| 3 | PI should have land (free of encumbrances) for setting up the units. | Yes |
| 4 | Availability of surplus crop residues in the operational area in large quantity from cereal /cash /fodder crops. | Yes |
| 5 | Network of village level farmers organisations such as Village Dairy Cooperative Societies, Milk Producers’ Institutions and SHGs for implementation work. | Yes |

**\***Preference would be given to PI meeting this criteria

1. **General Information about the PI**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | Legal form of Participating Institution (PI) | : | Milk Cooperative (registered under State Co-operative Societies Act, *\_\_(year)\_\_*) |
| 2 | Year of Registration | : |  |
| 3 | Area of Operation (Districts/Talukas) | : | **ABC** and **KLM** districts |
| 4 | Name of Managing Director | : | Smt./ Shri. \_\_\_\_\_\_\_\_\_\_\_ |

1. **Financial Status (Figures in Rs. Lakh)**

| **Particulars** | **2016-17** | **2017-18** | **2018-19** | **2019-20** | **2020-21** |
| --- | --- | --- | --- | --- | --- |
| Annual turnover |  |  |  |  |  |
| Share capital |  |  |  |  |  |
| Net profit |  |  |  |  |  |
| Accumulated Net Profit / Loss (-) |  |  |  |  |  |
| Net-Worth |  |  |  |  |  |

1. **Existing status and Future Projections**
2. **Coverage of PI**

| **No.** | **Particulars** | | **Unit** | **Base Year**  (2020-21) | **Future Projections (Cumm.)** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** |
| 1 | Village Level Institutions | Organised DCS/MPI | Nos. |  |  |  |  |  |  |
| Functional DCS/MPI | Nos. |  |  |  |  |  |  |
| 2 | Village Coverage | Functional DCS/MPI | Nos. |  |  |  |  |  |  |
| 3 | Producer Members | Functional DCS/MPI | ‘000 Nos. |  |  |  |  |  |  |
| 4 | Pourer Members | Functional DCS/MPI | ‘000 Nos. |  |  |  |  |  |  |
| 5 | Total Pourers (members + non-members) | Functional DCS/MPI | ‘000 Nos. |  |  |  |  |  |  |
| 6 | Total women members | Functional DCS/MPI | ‘000 Nos. |  |  |  |  |  |  |
| 7 | Producer Members per functional DCS/MPI | | Nos. |  |  |  |  |  |  |
| 8 | Avg. milk procurement per member | | KgPD |  |  |  |  |  |  |
| 9 | Avg. procurement per DCS/MPI | | KgPD |  |  |  |  |  |  |

1. **Milk Procurement**

| **No.** | **Particulars** | **Unit** | **Base Year**  (2020-21) | **Future Projections** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** |
| 1 | Milk Procurement from Functional DCS/MPI | TKgPD |  |  |  |  |  |  |
| 2 | Bulk Milk Procurement | TKgPD |  |  |  |  |  |  |
| 3 | Total milk procurement (1+2) | TKgPD |  |  |  |  |  |  |

1. **Sale of liquid milk & milk products**

| **No.** | **Particulars** | | **Unit** | **Base Year**  (2020-21) | **Future Projections** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** |
| 1 | Liquid milk sale | Packed Liquid Milk Sale | TLPD |  |  |  |  |  |  |
| Bulk milk sale | TLPD |  |  |  |  |  |  |
| Total | TLPD |  |  |  |  |  |  |
| Milk marketing as % milk procurement | % |  |  |  |  |  |  |
| 2 | Value Added Products | Butter | MTPD |  |  |  |  |  |  |
| Ghee | MTPD |  |  |  |  |  |  |
| Curd | MTPD |  |  |  |  |  |  |
| Lassi | TLPD |  |  |  |  |  |  |
| Flavoured milk | TLPD |  |  |  |  |  |  |
| Others\_\_\_\_ |  |  |  |  |  |  |  |
| Others\_\_\_\_ |  |  |  |  |  |  |  |
| Others\_\_\_\_ |  |  |  |  |  |  |  |

1. **Sale of cattle feed, mineral mixture and fodder seeds**

| **No.** | **Particulars** | | **Unit** | **Base Year**  (2020-21) | **Future Projections** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** |
| 1 | Cattle feed sale | | MT |  |  |  |  |  |  |
| 2 | Mineral Mixture sale | | MT |  |  |  |  |  |  |
| 3 | Fodder seed sale | Kharif | Qtl |  |  |  |  |  |  |
| Rabi | Qtl |  |  |  |  |  |  |

1. **Dairy Infrastructure of the PI**
2. **Liquid Milk Processing Infrastructure**

| **No.** | **Particulars** | **Existing Status**  (As on date \_\_/\_\_/\_\_\_\_\_) | | **Proposed Requirement**  **by 2025-26 (EoP)** |
| --- | --- | --- | --- | --- |
| **Location of Plant** | **Existing Capacity (TLPD)** |
| a.1 | Milk Processing Plant | PQR |  | Refurbishment/Expansion : \_\_\_\_ TLPD  New Plant: \_\_\_\_ TLPD (location PQR) |
| Plant 2: \_\_\_\_\_\_ |  |  |
| Plant 3:\_\_\_\_\_\_\_ |  |  |

1. **Value Added Products Manufacturing Infrastructure**

| **No.** | **Particulars** | **Existing**  (As on date \_\_/\_\_/\_\_\_\_\_) | | **Proposed Requirement by 2025-26**  **(TLPD/MTPD)** |
| --- | --- | --- | --- | --- |
| **Existing Numbers**  **(Nos.)** | **Existing Capacity (TLPD/MTPD)** |
| A | Drying Capacity (MTPD) |  |  |  |
| B | Butter (MTPD) |  |  |  |
| C | Ghee (MTPD) |  |  |  |
| D | Dahi/Yogurt (MTPD) |  |  |  |
| E | Lassi (TLPD) |  |  |  |
| F | Aseptic Flavoured Milk (TLPD) |  |  |  |
| G | Indigenous Sweets (MTPD) |  |  |  |
| H | Others\_\_\_\_\_\_\_\_ |  |  |  |
| I | Others\_\_\_\_\_\_\_\_ |  |  |  |
| J | Others\_\_\_\_\_\_\_\_ |  |  |  |

1. **Feed and Feed Supplement Manufacturing Infrastructure**

| **No.** | **Particulars** | **Existing**  (As on date \_\_/\_\_/\_\_\_\_\_) | | **Proposed Requirement by 2025-26 (MTPD)** |
| --- | --- | --- | --- | --- |
| **Location of Plant** | **Existing Capacity (MTPD)** |
| A | Cattle Feed | (\_\_\_\_) |  | Refurbishment/Expansion : \_\_\_\_ MTPD  New Plant: \_\_\_\_ MTPD (location\_\_\_\_\_\_) |
| B | Bypass protein plant | (\_\_\_\_) |  | Refurbishment/Expansion : \_\_\_\_ MTPD  New Plant: \_\_\_MTPD (location\_\_\_\_\_\_) |
| C | Mineral Mixture | (\_\_\_\_) |  | Refurbishment/Expansion : \_\_\_\_ MTPD  New Plant: \_\_\_\_ MTPD (location\_\_\_\_\_\_) |

1. **Chilling and Testing Infrastructure**

| **No.** | **Particulars** | **Existing**  (As on date \_\_/\_\_/\_\_\_\_\_) | | **Proposed Requirement by 2025-26 (EoP)** |
| --- | --- | --- | --- | --- |
| **Existing Numbers** | **Existing Capacity (TLPD)** |
| I | Bulk Milk Coolers (BMCs) |  |  |  |
|  | * *1 KL BMC* |  |  |  |
|  | * *2 KL BMC* |  |  |  |
|  | * *3 KL BMC* |  |  |  |
|  | * *5 KL BMC* |  |  |  |
|  | * *10 KL BMC* |  |  |  |
| ii | Chilling Centres |  |  |  |
|  | Total Chilling capacity (i+ii) |  |  |  |
| Iii | Milk Testing Lab (district/state level) |  |  |  |
| Iv | Automatic Milk Collection Unit (AMCU) |  |  |  |
| v | Data Processing & Milk Collection Unit (DPMCU) |  |  |  |

1. **Key Performance Indicators**

| **No.** | **Project Performance Indicators** | **Unit** | **Base-line figure**  **(Yr \_\_\_\_)** | **Incremental Targets** | | | | | **EOP**  (Cumulative Targets ) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Yr 1 (\_\_\_)** | **Yr 2 (\_\_\_)** | **Yr 3 (\_\_\_)** | **Yr 4 (\_\_\_)** | **Yr 5 (\_\_\_)** |
| **A** | **Strengthening Milk Procurement Infrastructure** | | | | | | | | |
| A1 | New DCS/MPI to be set up | ‘Nos. |  |  |  |  |  |  |  |
| A2 | DCS/MPI to be strengthened | ‘Nos. |  |  |  |  |  |  |  |
| A3 | DCS Building to be established | ‘Nos. |  |  |  |  |  |  |  |
| A4 | DCS/MPI to be covered through Electronic Testing Equipment (AMCU/DPMCU) | ‘Nos. |  |  |  |  |  |  |  |
| A5 | Additional Producers to be enrolled | ‘000 Nos. |  |  |  |  |  |  |  |
| A6 | % of women members of total members enrolled | % |  |  |  |  |  |  |  |
| A7 | Capacity of BMCs to be installed | TLPD |  |  |  |  |  |  |  |
| A9 | BMC Building to be established | ‘Nos. |  |  |  |  |  |  |  |
| A10 | Methylene Blue Reduction time (MBRT) of raw milk | in mins |  |  |  |  |  |  |  |
| A11 | Milk Procurement (Annual) | TKgPD |  |  |  |  |  |  |  |
| **B** | **Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed)** | | | | | | | | |
| B1 | Milk Processing Capacity to be created | TLPD |  |  |  |  |  |  |  |
|  | Quantity of milk processed in upgraded/new plants | TLPD |  |  |  |  |  |  |  |
|  | Reduction in effluent generation  *(in case of refurbishment of plant)* | % |  |  |  |  |  |  |  |
|  | Reduction in electricity usage *(in case of refurbishment of plant)* | KWH/ litre of milk processed |  |  |  |  |  |  |  |
|  | Reduction in usage of fossil fuels *(in case of refurbishment of plant)* | Litres/ litre of milk processed |  |  |  |  |  |  |  |
| B2 | Value Added Products Capacity to be created | TLPD/MTPD |  |  |  |  |  |  |  |
|  | Product 1 \_\_\_\_ | TLPD/MTPD |  |  |  |  |  |  |  |
|  | Product 2 \_\_\_\_ | TLPD/MTPD |  |  |  |  |  |  |  |
|  | Product 3 \_\_\_\_ | TLPD/MTPD |  |  |  |  |  |  |  |
| B3 | Feed & Feed Supplement Manufacturing capacity to be created | MTPD |  |  |  |  |  |  |  |
|  | Cattle Feed | MTPD |  |  |  |  |  |  |  |
|  | Bypass Protein | MTPD |  |  |  |  |  |  |  |
|  | Mineral Mixture | MTPD |  |  |  |  |  |  |  |
| **C** | **Support for Marketing Infrastructure** | | | | | | | | |
| C1 | Milk Parlour | ‘Nos. |  |  |  |  |  |  |  |
| C2 | Walk-in-Cold Store | ‘Nos. |  |  |  |  |  |  |  |
| C3 | Insulation for Vans | ‘Nos. |  |  |  |  |  |  |  |
| C4 | Liquid Milk Sale by the PI | TLPD |  |  |  |  |  |  |  |
| C5 | % increase in the sales volume of Value Added Products | % |  |  |  |  |  |  |  |
| C6 | Revenue of participating institutions from milk and dairy products | Rs. in million |  |  |  |  |  |  |  |
| **D** | **Support for ICT Infrastructure** | | | | | | | | |
| D1 | DCS to be covered under AMCS | ‘Nos. |  |  |  |  |  |  |  |
| **E** | **Productivity Enhancement** | | | | | | | | |
| **E1** | **Calf Rearing Programme (CRP)** | | | | | | | | |
| 1 | Villages to be covered | Nos. |  |  |  |  |  |  |  |
| 2 | Pregnant Animals to be covered | Nos. |  |  |  |  |  |  |  |
| 3 | Female Calves to be covered | Nos. |  |  |  |  |  |  |  |
| **E2** | **Animal Nutrition Advisory Services** | | | | | | | | |
| 1 | Villages to be covered | Nos. |  |  |  |  |  |  |  |
| 2 | Farmers to be covered | Nos. |  |  |  |  |  |  |  |
| 3 | Animas to be covered | Nos. |  |  |  |  |  |  |  |
| **E3** | **Fodder Development** | | | | | | | | |
| 1 | Fodder seed distributed |  |  |  |  |  |  |  |  |
|  | * Fodder Seed distributed | MT |  |  |  |  |  |  |  |
|  | * Plantation of root/stem cuttings | Lakh nos. |  |  |  |  |  |  |  |
|  | * Plantation of fodder trees | Lakh nos. |  |  |  |  |  |  |  |
| 2 | Mower distributed | Nos. |  |  |  |  |  |  |  |
|  | * High speed wet biomass management unit | Nos. |  |  |  |  |  |  |  |
|  | * Upto 5 HP | Nos. |  |  |  |  |  |  |  |
|  | * 5 to 15 HP | Nos. |  |  |  |  |  |  |  |
|  | * Over 15 HP | Nos. |  |  |  |  |  |  |  |
| 3 | Chaff Cutter distributed (power/manual) | Nos. |  |  |  |  |  |  |  |
| 4 | Fodder storage godown | Nos. |  |  |  |  |  |  |  |
| 5 | Silage Unit created | Nos. |  |  |  |  |  |  |  |
| 6 | MTC set-up | Nos. |  |  |  |  |  |  |  |
| 7 | Villages to be covered | Nos. |  |  |  |  |  |  |  |
| 8 | Farmers to be covered | Nos. |  |  |  |  |  |  |  |
| F | **Training and Capacity Development** | | | | | | | | |
| F1 | Persons to be trained/capacity developed | ‘Nos. |  |  |  |  |  |  |  |
|  | Officers | ‘Nos. |  |  |  |  |  |  |  |
|  | Staff | ‘Nos. |  |  |  |  |  |  |  |
|  | Farmers | ‘Nos. |  |  |  |  |  |  |  |

1. **Financial Outlays of the Sub Project (Rs. Lakh)**

| **No.** | **Particulars** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A | Strengthening Milk Procurement Infrastructure |  |  |  |  |  |  |
| B | Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed) |  |  |  |  |  |  |
| B1 | Milk processing facilities and manufacturing facilities for Value Added Products |  |  |  |  |  |  |
| B2 | Feed & feed supplements manufacturing infrastructure |  |  |  |  |  |  |
| C | Support for Marketing Infrastructure |  |  |  |  |  |  |
| D | Support for ICT Infrastructure |  |  |  |  |  |  |
| E | Productivity Enhancement |  |  |  |  |  |  |
| F | Training and Capacity Development |  |  |  |  |  |  |
|  | **Total** |  |  |  |  |  |  |
|  | **Grant (GoI)** |  |  |  |  |  |  |
|  | **Loan** |  |  |  |  |  |  |
|  | **PI’s/State’s Contribution** |  |  |  |  |  |  |

1. **Sub Project Financial Analysis**

| **No.** | **Financial Indicators** | **Base case** | **Sensitivity**  (10% reduction in procurement & sales) | **Norms** |
| --- | --- | --- | --- | --- |
| 1 | Return on Investment (RoI) |  |  | >10% |
| 2 | Debt Service Coverage Ratio (DSCR) |  |  | >1.50 |

# 

# Introduction

* 1. Overview of Operational Area of the PI

XYZ PI was established in the year \_\_\_\_\_. The area of operation of the PI is two districts of the State, namely \_\_\_*ABC*\_\_\_\_ and \_\_\_*KLM\_\_\_.* Detail of profile of operational area of PI is given in the table below:

Table 1: [Details of Operational Area of the PI](#_Toc530931754)

| **No.** | **Particulars** | | **Unit** | **Operational area of XYZ PI** |
| --- | --- | --- | --- | --- |
| 1 | Area | | ‘000 sq. km. |  |
| 2 | Revenue villages | | ‘Nos. |  |
| 3 | Total population | | Lakh ‘Nos. |  |
| 4 | Rural population | | Lakh ‘Nos. |  |
| 5 | Rural Household | | Lakh ‘Nos. |  |
| 7 | In milk animals | Indigenous cattle | Lakh ‘Nos. |  |
| Crossbred cattle |
| Buffalo |
| 8 | In-milk animal Productivity | Indigenous Cattle | KgPD |  |
| Crossbred Cattle |  |
| Buffalo |  |
| 9 | Milk production | | TKgPD |  |
| 10 | Estimated marketable surplus | | TKgPD |  |

* 1. Past performance of the PI
* Milk procurement network:

As on March 2021, the PI has \_\_\_\_ organised DCS of which \_\_\_\_ are functional. About \_\_\_\_ Lakh milk producers are members of DCS with \_\_\_% women members (\_\_\_\_ Lakh women members). Milk procurement and liquid milk sale of the PI is increasing at a CAGR of \_\_\_% and \_\_\_% respectively over past 5 years. Details of past performance of the PI are given in the Table below:

**Table 2: Details of Past Performance of the PI**

| **No.** | **Particulars** | **Unit** | **Past performance** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **16-17** | **17-18** | **18-19** | **19-20** | **20-21** | **CAGR** |
| 1 | Organised DCS/MPI | Nos. |  |  |  |  |  |  |
| 2 | Functional DCS/MPI | Nos. |  |  |  |  |  |  |
| 3 | Villages coved by Functional DCS/MPI | Nos. |  |  |  |  |  |  |
| 4 | Producer Members (Functional DCS/MPI) | ‘000 ‘Nos. |  |  |  |  |  |  |
| 5 | Pourers | ‘000 ‘Nos. |  |  |  |  |  |  |
| 6 | Women Members | ‘000 ‘Nos. |  |  |  |  |  |  |
| 7 | Producer Members per functional DCS/MPI | Nos. |  |  |  |  |  |  |
| 8 | Avg. milk procurement per member | KgPD |  |  |  |  |  |  |
| 9 | Avg. procurement per DCS/MPI | KgPD |  |  |  |  |  |  |
| 10 | Milk Procurement from DCS/MPI | TKgPD |  |  |  |  |  |  |
| 11 | Bulk milk procurement | TKgPD |  |  |  |  |  |  |
| 12 | Liquid Milk Sales | TLPD |  |  |  |  |  |  |
| 13 | Bulk milk sale | TLPD |  |  |  |  |  |  |
| 14 | Major Input Services provided | | | | | | | |
|  | Cattle Feed sale | MT |  |  |  |  |  |  |
|  | Mineral Mixture sale | MT |  |  |  |  |  |  |
|  | AI Done | ‘000 ‘Nos. |  |  |  |  |  |  |

* Competitors profile:

The milk procurement by competitors in the operational area of the POI:

**Table 3: Milk procurement in the operational area**

| **Particulars** | **Player 1** | **Player 2** | **Player 3** |
| --- | --- | --- | --- |
| Brand name |  |  |  |
| Milk procurement (2020-21) (TKgPD) |  |  |  |
| Average price paid to farmers (Rs. per litre) |  |  |  |

* Chilling capacity:

The chilling capacity of the PI is as given below:

**Table 4: Chilling and testing infrastructure with the PI**

| **No.** | **Particulars** | **Unit** | **Past performance** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **16-17** | **17-18** | **18-19** | **19-20** | **20-21** |
| i | Bulk Milk Coolers (BMCs) |  |  |  |  |  |  |
|  | * Nos. |  |  |  |  |  |  |
|  | * Capacity |  |  |  |  |  |  |
| ii | Chilling Centres |  |  |  |  |  |  |
|  | * Nos. |  |  |  |  |  |  |
|  | * Capacity |  |  |  |  |  |  |
| iii | Milk Testing Lab (district/state level) |  |  |  |  |  |  |
| iv | Automatic Milk Collection Unit (AMCU) |  |  |  |  |  |  |
| v | Data Processing & Milk Collection Unit (DPMCU) |  |  |  |  |  |  |
| vi | Electronic Adulteration Testing Machine |  |  |  |  |  |  |

The details of existing chilling and testing infrastructure is given in **Annex I**.

* Quality of milk:

About \_\_\_% of total milk procured is received through tankers (\_\_\_\_ TKgPD) and \_\_\_% through Cans (\_\_\_\_ TKgPD). The MBRT of milk received at the dairy are as under:

**Table 5: MBRT of milk received at the dairy**

| **Particulars** | | **MBRT (in minutes)** |
| --- | --- | --- |
| Chilled milk | Chilling centre |  |
| BMC |  |
| Raw milk | Cans |  |

Quality of milk received at the PI and the price paid to the producer members:

**Table 6: Quality of milk received and price paid to farmers**

| **Particulars** | **16-17** | **17-18** | **18-19** | **19-20** | **20-21** |
| --- | --- | --- | --- | --- | --- |
| Avg. Fat (%) |  |  |  |  |  |
| Avg. SNF (%) |  |  |  |  |  |
| Avg. milk procurement price (including price difference) (Rs. per Kg) |  |  |  |  |  |

* Milk processing

At present, the PI has a processing plant of \_\_\_\_ TLPD capacity at \_\_\_*PQR*\_\_\_ city. The plant was established in the year \_\_\_\_\_.

**Table 7: Details of Milk Processing Capacity of the PI**

| **No.** | **Particulars** | **Unit** | **Capacity** |
| --- | --- | --- | --- |
| 1 | Milk Processing Plant | TLPD |  |
| 2 | Raw milk silos | KL |  |
| 3 | Pasteurised milk silos | KL |  |
| 4 | Pasteuriser | KLPH |  |
| 5 | Homogenizer | KLPH |  |
| 6 | Cream separator | KLPH |  |

The PI manufactures milk products like butter, ghee, curd, lassi, flavoured milk, \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_ in the existing plant.

**Table 8: Value Added Products Plant Capacity of the PI**

| **No.** | **Particulars** | **Unit** | **Capacity** |
| --- | --- | --- | --- |
| 1 | Butter | MTPD |  |
| 2 | Ghee | MTPD |  |
| 3 | Curd | MTPD |  |
| 4 | Lassi | TLPD |  |
| 5 | Flavoured Milk | TLPD |  |
| 6 | Others \_\_\_\_\_ | TLPD/MTPD |  |
| 7 | Others \_\_\_\_\_ | TLPD/MTPD |  |
| 8 | Others \_\_\_\_\_ | TLPD/ MTPD |  |

* Marketing of liquid Milk & Milk Products

The details of liquid milk demand and share of various players is given in the table below:

**Table 9: Liquid Milk Demand & Sales in PI’s Operational Area**

| **No.** | **Particulars** | **Unit** | **Figures** |
| --- | --- | --- | --- |
| 1 | Cities covered for marketing |  | *(name of cities)* |
|  | Milk Demand | TKgPD |  |
| 2 | Liquid Milk Sale | TLPD |  |
|  | XYZ PI | TLPD |  |
|  | Private Players 1\_\_\_ | TLPD |  |
|  | Private Players 2\_\_\_ | TLPD |  |
|  | Unorganised Sector | TLPD |  |

The PI sells packed liquid milk & milk products under the brand name ‘*XYZ Milk’*. The details of sales of liquid milk and value added products by the PI is given below:

**Table 10: Details of sale of liquid milk & value added products by the PI**

| **No.** | **Product** | **Unit** | **Avg. Fat %** | **Avg. SNF %** | **Quantity sold** |
| --- | --- | --- | --- | --- | --- |
| **A.** | **Liquid milk** |  |  |  |  |
| 1 | Toned Milk | TLPD |  |  |  |
| 2 | Double Toned | TLPD |  |  |  |
| 3 | Standard Milk | TLPD |  |  |  |
| 4 | Full Cream Milk | TLPD |  |  |  |
| **B.** | **Value Added Products** |  |  |  |  |
| 1 | Butter | MTPD |  |  |  |
| 2 | Ghee | MTPD |  |  |  |
| 3 | Curd | MTPD |  |  |  |
| 4 | Lassi | TLPD |  |  |  |
| 5 | Flavoured Milk | TLPD |  |  |  |
| 6 | Others\_\_\_\_ |  |  |  |  |
| 7 | Others\_\_\_\_ |  |  |  |  |
| 8 | Others\_\_\_\_ |  |  |  |  |

The overview of marketing infrastructure of the PI is as given below in the table:

**Table 11: Details of marketing infrastructure of the PI**

| **No.** | **Particulars** | **Unit** | **Figure**  **(2020-21)** |
| --- | --- | --- | --- |
| 1 | Distributors | Nos. |  |
| 2 | Retailers | Nos. |  |
| 3 | Franchisee | Nos. |  |
| 4 | Exclusive Milk Booth/ Parlours | Nos. |  |
| 5 | Insulated vehicles | Nos. |  |
|  | - Capacity | TL |  |
| 6 | Refrigerated vehicles | Nos. |  |
|  | * Capacity | TL |  |
| 7 | Retailers having Visi coolers | Nos. |  |
| 8 | Retailers having Deep Freezer | Nos. |  |
| 9 | Walk-in-Cold store | Nos. |  |
|  | * Capacity | TL |  |

* 1. Financial status of the PI
* The past financial performance of the PI is given below:

**Table 12: Financial Performance of the PI in past 5 years**

| **No.** | **Particulars** | **Past Performance (Rs. Lakh)** | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **2016-17** | **2017-18** | **2018-19** | **2019-20** | **2020-21** |
| 1 | Annual turnover |  |  |  |  |  |
| 2 | Share capital |  |  |  |  |  |
| 3 | Net profit |  |  |  |  |  |
| 4 | Accumulated Net Profit/ Loss (-) |  |  |  |  |  |
| 5 | Net-Worth |  |  |  |  |  |

* Assistance received by the PI under various central/ state Government schemes for Dairy Development activities over last 3 years is given in the table below:

**Table 13: Assistance received by the PI under various schemes**

| **No.** | **Scheme name** | **Loan Amount**  **(Rs. Lakh)** | **Grant Amount**  **(Rs. Lakh)** | **PI’s share**  **(Rs. Lakh)** | **Total Outlay**  **(Rs. Lakh)** | **Purpose** |
| --- | --- | --- | --- | --- | --- | --- |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |

* Long term borrowings from NDDB and other Banks/ Financial institutions is given in the table below:

**Table 14: Long term borrowing by the PI**

| **No.** | **Name of Agency** | **Amount received (Rs. in Lakh)** | **Purpose** | **Repayment Status** |
| --- | --- | --- | --- | --- |
| 1 |  |  |  |  |
| 2 |  |  |  |  |

# Overview of Sub Project

* 1. Objective of the Sub Project

The objective of the sub project is to increase sales of milk and milk products by increasing farmers' access to organised market, upgrading milk processing facilities and marketing infrastructure and enhancing the productivity of milch animals through animal nutrition intervention, thereby contributing to increase in returns to the producer members in the operational area of the union.

* 1. Sub Project Area

The proposed activity would be implemented in the operational area of the PI i.e. \_\_\_\_\_\_\_,\_ \_\_\_\_\_\_\_\_\_\_ districts.

* 1. Activities proposed

Following activities have been proposed under the project:

* Strengthening Milk Procurement Infrastructure
* Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed)
* Support for Marketing Infrastructure
* Support for ICT Infrastructure
* Productivity Enhancement
  + Calf Rearing Programme (CRP)
  + Animal nutrition advisory services
  + Fodder development
  1. Beneficiaries

After implementation of the Sub Project, milk producers of the DCS/MPI affiliated to the PI will be benefitted. This would help in increasing the income of milk producers and make available quality milk & milk products to the consumer.

# Sub Project Components Rationale & Design

* 1. Component A: Strengthening milk procurement infrastructure
     1. **Rationale**
* At present, The PI has covered only \_\_\_% revenue villages and procures about \_\_\_% of milk marketable surplus villages in its operational area. The PI is facing competition from private players and unorganised players in milk procurement operations. The PI envisages expanding its coverage by setting-up new DCS in uncovered villages and enrolling more milk producer members in existing DCS. To maintain transparency and build trust of producer members in milk procurement operations and improve quality of milk received, the PI needs to set-up Electronic milk testing equipment and BMCs at DCS level.
  + 1. **Component Design**

Under this component following activities have been proposed:

1. Setting-up of new Dairy Cooperative Society (DCS)
   1. Milk collection accessories including testing equipment and furniture, etc.
   2. Management grant to village level functionaries of new DCS
2. Installation of electronic milk testing equipment (AMCU)
3. Installation of Bulk Milk Coolers (BMC)
4. Building for DCS/BMC
5. Tankers for milk transportation

The list of villages proposed for setting-up of new DCSs/ strengthening of existing DCS is given in **Annex II**.

The list of proposed DCSs for setting up of Electronic milk testing equipment at BMC locations/DCS considered for strengthening is given in **Annex III**.

The list of proposed location wise requirement of BMC capacity is given in the **Annex IV**.

* 1. Component B: Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed)
     1. **Rationale**
* At present PI has a milk processing plant of \_\_\_ TLPD capacity which was established in the year \_\_\_\_\_\_. The details of existing land area & civil structure and existing plant equipment is provided in **Annex V-A** and **Annex V-B**.
* The milk procurement is increasing at CAGR of \_\_% since last 5 years and is expected to grow at CAGR of \_\_\_% in the next 5 years. Considering the milk procurement activities proposed under the project and the past growth rate of milk procurement, it is estimated that in next 5 years the milk procurement volume will reach to \_\_\_\_ TKgPD from villages in its operational area.
* To handle the increased milk procurement, the PI proposes to establish a new automated dairy plant of \_\_\_\_ TLPD capacity along with value added product manufacturing facility at the existing location (\_\_\_\_\_\_\_\_\_).
* In the project area, due to poor economic condition of milk producers and lack of awareness, the practice of feeding cattle feed & feed supplements like mineral mixtures is not uniform. There is a need to encourage milk producers for feeding the animals with cattle feed and mineral mixture in the project area. The PI does not have its own manufacturing capacity for cattle feed & mineral mixture. Therefore, it is proposed to establish a new cattle feed plant of \_\_\_\_\_ MTPD along with mineral mixture plant of \_\_\_\_ MTPD capacity, which will help in making available feed & feed supplements at reasonable rate to our milk producers as feeding of quality feed and feed supplements are crucial for improving milk productivity in animals.
  + 1. **Component Design**

**B1: Milk Processing Facilities and manufacturing facilities for Value Added Products**

* Proposed new milk processing plant details

The PI proposes to set up a new \_\_\_\_ TLPD milk processing plant to handle projected milk procurement and meet market demand of quality pasteurised milk.

* Land and location

The existing plant (\_\_\_\_ TLPD) of the PI is located at outskirts of PQR city. At the existing location, the PI has its own land which is encumbrance free and is available to establish a new \_\_\_\_ TLPD milk processing plant, along with milk products facilities.

* Site development

The location is already fenced. The PI will take necessary actions such as levelling the land, etc. for construction of new plant under the project. The filled-in site selection format is given in **Annex VI-A**.

* Layout and building

The civil works comprise of main processing building, which includes Tanker Reception Bay, Main processing hall, provision for manufacture of other products, cold storage, CIP, Laboratory, quarters, office, garages, security post etc. The factory building for the milk reception, quality control, processing, packing and storage of milk products should be as per approved standards. The essential sections of a milk Tanker Reception Bay - consisting of can conveyor, can washer, weighing balance, dump tank etc.

* + Processing Hall - cream separator, chiller, homogenizer, pasteuriser and other related machinery are installed.
  + Storage area- for milk storage tanks.
  + Products manufacturing area-depends upon the type of products, quantity of milk handled and the machinery to be installed.
  + Packing area-for packing of liquid milk and other products.
  + Cold storage-for keeping the milk and milk products before sending to market.
  + Quality Control Laboratory-for testing the quality of milk and milk products.
  + Utilities area-for installing boiler, generator set, water treatment plant, maintenance and store area for spares.
  + Effluent Treatment Plant area for treating the dairy effluents before being discharged.
  + Office area-for all the essential staff.
  + Vehicle parking area-both for the milk procurement and distribution vehicles.
  + Input supply area- for providing veterinary service, supply of feed, fodder seeds, etc.
* Plant and machinery

The buildings and equipment required for establishment of capacity of new milk processing plant along with its specification is given in **Annex VII-A**.

**B2: Feed & Feed Supplement Manufacturing Infrastructure**

* Proposed new feed & feed supplement plant details

The PI proposes to establish \_\_\_\_ MTPD cattle feed plant along with by-pass protein feed (\_\_\_ MTPD) and mineral mixture (\_\_\_ MTPD) manufacturing facilities to cater to the demand of its producer members.

* Land and location

The plant is envisaged to be established at MNO location which is well connected by road and railway. Most of the raw materials can be procured locally or from neighbouring states. It is estimated that approximately \_\_\_ acres of land would be required to house the plant as well as the raw material and finished goods godowns. The PI has its own land of \_\_\_ acres which is encumbrance free where the proposed plant can be set-up. The filled-in site selection format is given in **Annex VI-B**. The buildings and equipment required for establishment of capacity of new milk processing plant along with its specification is given in **Annex VII-B**.

* Type of feed

The PI is envisaging to manufacture BIS Type I and Type II cattle feed, mineral mixture and by-pass protein feed at the proposed plant.

* 1. Component C: Support for Marketing Infrastructure
     1. **Rationale**
* At present, the PI is selling \_\_\_\_ TLPD liquid milk in its operational area under brand name \_\_\_\_\_, whereas demand of liquid milk is \_\_\_\_ TLPD. The PI targets to sell \_\_\_ TLPD liquid milk by 2025-26 by increasing its share in liquid milk demand from \_\_\_% to \_\_\_%.
* To enhance perception of consumers about the milk products of the PI there is need to strengthen cold chain infrastructure and establish additional milk parlours so that good quality milk products can be made available at desirable temperatures to the consumers.
* The marketing and sales plan of the PI over next three years is given in **Annex VIII.**
  + 1. **Component Design**

Under this component following activities have been proposed:

* Strengthening marketing cold chain infrastructure by:
  + Establishing walk-in cold stores
  + Insulation of marketing vans
  + Establishing Milk Parlours with visi-coolers and deep freezers
* Conducting consumer awareness programmes highlighting the benefits of packed liquid milk over loose milk, dangers of loose milk in terms of hygiene, quality, etc.
* Conducting marketing studies and market promotion activities
  1. Component D: Support for ICT Infrastructure
     1. **Rationale**
* Information & Communication Technologies (ICT) plays a pivotal role in maintaining transparency and improving operational efficiency of a business. It is necessary for the PI to promote the use of ICT to remain competitive. ICT will be helpful at all levels of dairy value chain by increasing traceability, reducing turn-around time and maintaining transparency in operations. It is very important that benefit of ICT should also reach to the milk producers. To build transparency in milk bill payment ICT can play a pivotal role by daily informing the milk producers about the quantity & quality of milk poured and its value. Under the project, it is proposed to establish Automatic Milk Collection System (AMCS).
  + 1. **Component Design**
* AMCS is a software to streamline milk collection operations at village level and provide farmers and other stakeholders with latest information on milk procurement transactions on real-time basis.
* Necessary arrangement of the hardware and software required for implementation will be installed suitably. The software would be installed at DCS level, connectivity with PI Portal will be established, interface with various equipment will be managed, the software will be configured, the initial data from union portal will be updated and DCS would be guided to manage / update master data.
* It will help in bringing transparency in the milk collection operations, improve process efficiency and provide real time information to dairy cooperatives. AMCS will enable milk bill payment directly to farmers’ bank accounts. Farmers will get instant SMSs for every transaction and have access to all past transactions with AMCS android application.

* 1. Component E: Productivity Enhancement
     1. **Rationale**
* The milk productivity of milch animals in the operational area is very low. Low milk production by indigenous cows and buffaloes can be attributed to several reasons of which imbalanced nutrition is one of the major factors. Also, feeding accounts for about 70% of the cost of milk production. To improve the profitability and income from dairy farming, the PI proposes to implement productivity enhancement activities such as Calf Rearing Programme (CRP), Animal Nutrition Advisory Services and Fodder Development activities in its operational area.

**E.1: Calf Rearing Programme**

* In order to improve the productivity and lifetime milk production, Calf Rearing Programme is proposed to be implemented by the PI. It would help in addressing the issues of high calf mortality, delay in sexual maturity and longer calving interval, which are the major causes of economic loss to the farmers.
* Under the programme, pregnant animals will be fed with specific feed optimally. Subsequently, proper feeding and management of healthy born calves would help in their growth at desired rate.

**E.2 Animal Nutrition Advisory Services:**

* To maximise profitability in dairy farming and to achieve maximum yield as per their genetic potential, it is important to feed animals optimally during transition as well as in early phase of lactation.
* Feeding of quality feed and feed supplements are crucial for improving productivity and reproductive performance in animals. Due to lack of awareness on balanced feeding, the ration of dairy animals remains often deficient with certain critical nutrients that are important for milk production and reproduction.
* Thus, under the project, milk producers will be encouraged to feed the animals with fodder, cattle feed & mineral mixture in a balanced proportion with the help of ‘*Pashu Poshan’* application.

**E.3 Fodder Development:**

* Availability of green fodder round the year is critical as green fodder is the source of nutrients for milch animals. The shortage of green fodder in the operational area poses a major challenge for the PI to meet the nutritional requirement of livestock.
* In the operational area of the PI, the main constraints for enhancing availability of green fodder are limited land under fodder production, shortages of improved certified fodder seeds, poor adoption of fodder conservation practices, lack of adequate management of common / fallow lands, wasting of fodder by feeding un-chaffed fodder and lack of awareness among farmers about latest & improved fodder production & conservation technologies. To make available green fodder throughout the year, it is important to conserve fodder in the form of silage when it is abundant at particular season. Thus, PI proposes to enhance green fodder production and promotion of fodder conservation technologies & crop residue management at field level in its operational area.
  + 1. **Component Design**

**E1 Calf Rearing Programme**

* + An Animal Nutrition Officer (ANO) will be responsible for project implementation and monitoring.
  + One CRP supervisor would be identified for about 10 villages
  + Advanced pregnant cows (minimum 7 months pregnant) and buffaloes (minimum 8 months pregnant) will be identified, depending upon the availability of milch breeds.
  + During advanced pregnancy stage, pregnancy feed will be given to identified animals @ 3 kg per day/animal for 60 days prior to calving.
  + On calving, CRP supervisor would ear tag the female calves with 12 digit unique ear tag provided in the project and record data in INAPH software using tablet/android phone.
  + Calf starter (225 kg/animal for 26 weeks), calf growth meal (1435 kg/animal for 82 weeks) would be made available for each animal.
  + Transition feed (4 kg per day for 111 days) will be provided to the Dams in order to achieve higher milk yield, longer lactation length and to reduce metabolic disorders.
  + Farmers will be oriented on ‘*Pashu Poshan’* application for generating balanced ration advice by themselves.
  + After completion of six months of project implementation, awareness campaigns for farmers will be organized by the CRP supervisor.

**E2 Animal Nutrition Advisory Services**

* + An Animal Nutrition Supervisor (ANS) will conduct village awareness programme to popularise various feed supplements and their importance.
  + Demonstration of benefits of mineral mixture feeding to 40 animals in a village will be done in phased manner. Animal will be provided 100 gm/day mineral mixture for 300 days. Benefits of feeding mineral mixture through these animals will be demonstrated to other farmers in the village by conducting Village Awareness Programmes (VAPs).
  + Demonstration for positive effects of Transition feed and early lactation feed (4 kg for 111 days per animal) will be carried out (for about 10 animals per village).
  + Popularisation of ‘*Pashu Poshan’* application will be done to promote balanced feeding.
  + Pamphlets and reading materials will be provided to farmers in local languages.
  + All the transactions will be captured in INAPH software.

**E3 Fodder Development Activities**

* + Animal Nutrition Officer (ANO) and Animal Nutrition supervisors (ANS) will be responsible for project implementation and monitoring (same for all PE activities).
  + The PI will identify farmers to provide support for TL/Certified/ Hybrid fodder seeds and to encourage use of mowers.
  + Under the project, Manual chaff-cutters will be provided to marginal & small farmers and Power chaff-cutters will be provided to large farmers.
  + The PI will identify and develop entrepreneurs at village level who will organise production of green fodder on medium and large farmers’ fields under buy- back arrangement with DCS and conserve it in the form of silage.
  + PI will identify progressive farmer in villages for making available premises for setting-up of Micro Training Centre (MTC). The operations of MTC will be managed by the PI.
  + For Commercial fodder production, the PI will finalise land on lease in the village and develop the land in a scientific manner for fodder production. The fodder thus produced will be sold to landless households, marginal and small farmers.

The list of villages proposed for implementation of CRP, AN advisory services and Fodder development activities is given in **Annex IX.**

* 1. Component F: Training and Capacity Development
* Training & capacity development of PI Staff, DCS staff and producer members is an important aspect for success of the sub project. Thus, under the sub project, the PI proposes to focus on capacity building of its manpower in all spheres of dairying operations along with awareness & extension activities for milk producers.

# Sub Project Implementation Arrangement

* 1. Implementation arrangement
     1. **Sub Project Management Committee (SPMC)**
* At the PI level, a Sub Project Management Committee will be constituted for monitoring and reviewing activities under various components being implemented under the project, which will be headed by Managing Director (MD) of the PI.
* The members of the Committee will be:

1. Managing Director/ Chief Executive Officer / General Manager of the PI (Chairperson)
2. Section/Department Heads (Purchase, Finance & Accounts, HR & Admin, Procurement & Inputs, Plant & Engineering, Marketing & Sales, IT/MIS.)
3. Sub-Project Coordinators (all components proposed under the project)
4. Grievance Redressal Officer (GRO)
5. NDDB representative
6. MIS Officer – who shall be the member convener

* The Committee, if desires, may also call special invitees to attend the meeting. The Committee will meet at least once a quarter to review the progress of sub project activities.
* The roles & responsibilities of the Committee will be:
  + To review the progress of the sub project (component wise) and provide quarterly reports (as may be required) to Implementation & Monitoring Cell (IMC) in NDDB in specified formats.
  + To prepare long term strategies, action plans, take policy decisions related to sub project implementation, including approval of budget, expenditure, reimbursement and release of advances, entering into contracts with agencies and other organizations, etc.
  + Post sanction, timely execution of project agreements and ensure regular utilisation & repayment of loan as per the terms and conditions prescribed in the loan agreements.
  + Resolve issue and bottlenecks during sub project implementation.
  + Regularly review the status of grievance redressal under the sub projects and provide guidance/directions, if required.
  + Provide required support to auditors appointed under the project.
  + Ensure timely submission of required data, information and reports to IMC (located at NDDB.
    1. **Sub Project Implementation Cell (SPIC)**
* To effectively implement each component under the project, a Sub Project Implementation Cell will be constituted at PI level for each component.
* The Cell will be headed by Sub Project Coordinator (PC) who will be appointed by MD of the PI and the members of the Cell will be:

1. Sub Project Coordinator (one PC each for respective component) – head of the cell
2. Officers & Supervisor (Milk procurement supervisor/ Marketing supervisor/AN officer, AN supervisor, CRPS – as applicable to the sub project)
3. Purchase Officer
4. Finance & Accounts Officer
5. IT/MIS Officer

* The Cell will be responsible for implementation and monitoring of the activities of the particular component on day-to-day basis and will be accountable for achievement of the targets set under the sub project.
* The Cell would meet every month and will manage implementation of the sub project under the supervision, direction and control of the Sub Project Management Committee.
* The roles & responsibilities of the Cell will be:
  + Define sub-project Key Performance Indicators (KPI) in line with Project Operation Manual and set monthly targets under each KPI
  + Arrange required resources to implement the project
  + Monitor the physical and financial progress of the Sub project
  + Document success stories.
  + Periodically report the progress of sub project activities to the Sub Project Management Committee.
  + Provide required suggestions/ recommendations to Sub Project Management Committee to take necessary policy decisions for smooth implementation of the sub-project.
  + Resolve and respond to all grievances received under the sub project.
  + Maintain record and accounts of all transactions.
  + Identification/recruitment of requisite manpower & arrange their training
    1. **Implementation in the field**
* The PI will identify one senior officer as Project Coordinator (PC) from the existing manpower for overall project coordination and monitoring. Supervisors/Field staff will report to PC. PC will liaison with NDDB for technical and other supports.
  1. Schedule of implementation
* The sub project is expected to start in the year 2021-22. The appointment of the agency for technical consultancy services, construction of civil structures, purchase of materials, etc. will begin from 2021-22. The establishment of new dairy plant is expected to be completed by 2022-23 and start processing of milk and manufacturing of milk products from 2022-23 onwards. The tentative schedule of implementation of activities under the project is given in **Annex X.**

# Human Resource Management

* 1. Existing Manpower
* The PI has total manpower strength of \_\_\_, of which \_\_\_ are officers, \_\_\_\_ are staff and \_\_\_\_ are workers. The day to day operations of the PI is looked after by a Managing Director. Section wise existing manpower strength is given in the table below:

Table 15: Section wise existing manpower of the PI

| **No.** | **Department/**  **Section** | **Officers** | | | **Staff** | | | **Workers** | | | **Total** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Regular** | **Contract** | **Total** | **Regular** | **Contract** | **Total** | **Regular** | **Contract** | **Total** | **Regular** | **Contract** | **Total** |
| 1 | Administration |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | Accounts |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | P&I |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | Marketing |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | Purchase/Store |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | MIS |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 | Plant/Production |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 | Quality Control |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | Engineering |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total** |  |  |  |  |  |  |  |  |  |  |  |  |

* The Organogram of the PI is given in **Annex XI.**
  1. Training & Capacity Development activities of the PI
* At present, the PI has its own Training Centre with \_\_\_ rooms having aggregate seating capacity for about \_\_\_\_ persons. Lodging and boarding facilities are available for about \_\_\_\_ persons is available.
* In 2020-21 the PI had conducted \_\_\_\_*(nos.)*\_\_\_ training programmes for farmers, Board of Directors, officer and staff on various topics related to clean milk production, farm management, dairy value chain, plant operations, etc.
  1. Manpower required for the proposed sub-project

The PI has the required manpower for implementation of the project. The additional manpower required for the project would be hired as and when required. The key manpower required for implementation of sub project activities at village level will be identified and suitably trained. The manpower identified at PI level for coordination of all the components under the project is as given below:

**Table 16: Details of manpower identified for sub-project**

| **No.** | **Particulars** | **Manpower required** | **Identified/ to be recruited** |
| --- | --- | --- | --- |
|  | Project Coordinators | *Nos.* | Identified |
|  | MIS Officer | *Nos.* | Identified |
|  | Grievance Redressal Officer | *Nos.* | Identified |
|  | Finance Officer | *Nos.* | Identified |
|  | Purchase (Procurement) Officer | *Nos.* | Identified |
|  | **Total** | ***Nos.*** |  |

Component wise specific manpower required for implementation of the sub-project is as follows:

Component A: Strengthening milk procurement infrastructure

**Table 17: Details of manpower identified for component A: Strengthening milk procurement infrastructure**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Particulars** | **Manpower required** | **Identified/ to be recruited** |
|  | Project Coordinator | *Nos.* | Identified |
|  | Procurement Officer/ Manager | *Nos.* | Identified |
|  | Supervisor | *Nos.* | *\_\_(nos.)\_\_\_* – identified,  *\_\_(nos.)\_\_\_* – proposed to be recruited |
|  | **Total** | ***Nos.*** |  |

New DCS secretaries will be recruited from the village itself. Wherever BMC is proposed, suitable persons as cleaner & tester will also be identified. DCS employees will be trained on various aspects of running DCS and BMC.

Component B: Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed):

* Manpower required for Milk processing plant of \_\_\_ TLPD along with Value Added Products facilities is given below:

**Table 18: Details of manpower identified for component B1: Strengthening of milk processing infrastructure**

| **No.** | **Particulars** | **Manpower required** | **Identified/ to be recruited** |
| --- | --- | --- | --- |
|  | Project Coordinator | *Nos.* | Identified |
|  | Plant Manager | *Nos.* | Identified |
|  | Engineers | *Nos.* | *\_\_(nos.)\_\_\_* – to be identified |
|  | Quality Control/ Lab. Chemist | *Nos.* | *\_\_(nos.)\_\_\_* – to be identified |
|  | Production Officer | *Nos.* | *\_\_(nos.)\_\_\_* - identified,  *\_\_(nos.)\_\_\_* – proposed to be recruited |
|  | Sr. Technician / Operator | *Nos.* | *\_\_(nos.)\_\_\_* - identified,  *\_\_(nos.)\_\_\_* – proposed to be recruited |
|  | Distribution coordinator | *Nos.* | Identified |
|  | Store Keeper | *Nos.* | Identified |
|  | **Total** | ***Nos.*** |  |

About \_\_ Officers and \_\_\_ staff are required to operate the automated plant. The casual labour required for the plant would be hired on daily job work basis.

* Manpower required for Cattle feed & feed manufacturing plant of \_\_\_ MTPD along with \_\_\_ MTPD by-pass protein plant and \_\_ MTPD mineral mixture plant is given below:

**Table 19: Details of manpower identified for sub component B2: Strengthening of feed & feed supplement manufacturing infrastructure**

| **No.** | **Particulars** | **Manpower required** | **Identified/ to be recruited** |
| --- | --- | --- | --- |
|  | Project Coordinator (PC) | *Nos.* | Identified |
|  | Engineers | *Nos.* | *\_\_(nos.)\_\_\_* – to be identified |
|  | Purchase Officer | *Nos.* | Identified |
|  | Production Officers | *Nos.* | *\_\_(nos.)\_\_\_* – to be identified |
|  | Quality Control/ Lab. Chemist | *Nos.* | Identified |
|  | Sr. Technician / Operator | *Nos.* | *\_\_(nos.)\_\_\_* - identified,  *\_\_(nos.)\_\_\_* - proposed to be recruited |
|  | Distribution coordinator | *Nos.* | Identified |
|  | Technicians | *Nos.* | *\_\_(nos.)\_\_\_* - identified,  *\_\_(nos.)\_\_\_* - proposed to be recruited |
|  | Administration Officer | *Nos.* | To be recruited |
|  | Store Keeper | *Nos.* | Identified |
|  | **Total** | ***Nos.*** |  |

It is estimated that the CFP would attain 75% capacity utilization only after the fifth year of commencement of operations. Initially \_\_\_ personnel are planned to be engaged in essential areas such as production, distribution, stores, laboratory etc. As the plant starts to operate the third shift from the sixth year onwards, the number of personnel engaged would be increased to \_\_\_\_. The PI will put in place the required manpower.

Component C: Support for Marketing Infrastructure:

**Table 20: Details of manpower identified for component C: Support for Marketing Infrastructure**

| **No.** | **Particulars** | **Manpower required** | **Identified/ to be recruited** |
| --- | --- | --- | --- |
|  | Project Coordinator (PC) | *Nos.* | Identified |
|  | Marketing Officer/ Manager | *Nos.* | Identified |
|  | Marketing Field Staff | *Nos.* | *\_\_(nos.)\_\_\_* - identified,  *\_\_(nos.)\_\_\_* - to be recruited |
|  | **Total** | ***Nos.*** |  |

Component D: Support for ICT Infrastructure:

**Table 21: Details of manpower identified for component D: Support for ICT infrastructure**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Particulars** | **Manpower required** | **Identified/ to be recruited** |
|  | Project Coordinator (PC) | *Nos.* | Identified |
|  | MIS Officer | *Nos.* | Identified |
|  | **Total** | ***Nos.*** |  |

Component E: Manpower for Productivity Enhancement Activities:

**Table 22: Details of manpower identified for component E: Productivity Enhancement**

| **No.** | **Particulars** | **Manpower required** | **Identified/ to be recruited** |
| --- | --- | --- | --- |
|  | Project Coordinator (PC) | *Nos.* | Identified |
|  | Animal Nutrition Officer (ANO) | *Nos.* | To be recruited |
|  | Calf Rearing Programme Supervisor (CRPS) | *Nos.* | To be recruited |
|  | Animal Nutrition Supervisor (ANS) | *Nos.* | To be recruited |
|  | **Total** | ***Nos.*** |  |

# Financial Management

* 1. Financial Analysis
     1. **Financial indicators**

The XYZ PI is a financially stable organisation and its sales turnover has increased by \_\_\_\_% over past 5 years. The Financial Performance of the PI is shown in the Table below:

**Table 23: Financial performance of the PI**

(Rs. Lakh)

| **Particulars** | **2016-17** | **2017-18** | **2018-19** | **2019-20** | **2020-21** |
| --- | --- | --- | --- | --- | --- |
| Annual turnover |  |  |  |  |  |
| Share capital |  |  |  |  |  |
| Net profit |  |  |  |  |  |
| Accumulated Net Profit / Loss (-) |  |  |  |  |  |
| Net-Worth |  |  |  |  |  |

* 1. Release of Fund

The PI will open two separate “Project Bank Accounts” in a scheduled commercial bank one for loan and the other for grant for transactions related to the implementation of the project. Project Bank Account will be operated by two authorised persons of the PI. PI will deposit its’ contribution in the said Project Bank Accounts. All payments related to the sub-project shall be made through cheques or bank transfer from these accounts only.

The PI will submit the Fund Utilisation Report (FUR) duly audited by its internal auditors (a Chartered Accountant) within 15 days of the close of the quarter.

* 1. Financial Management arrangements including fund flow

The PI will follow the financial management arrangements prescribed in the Project Operational Manual. The PI would build up sound financial management systems and processes as also the organisational structure to implement these systems in an efficient manner for availing assistance under the JICA project.

# Sub Project Procurement/Purchase Arrangement

* 1. Present procurement (purchase) procedure of the PI

The PI has its own Procurement rules which is being followed for procurement of goods (ICT and Non-ICT), works and services. The Purchase section is headed by General Manager and supported by \_\_\_ Managers and \_\_\_\_ officers. Qualifications of personnel working in purchase section are given below:

**Table 24: Manpower structure in Purchase section**

| **No.** | **Designations** | **Qualifications** | **Experience** |
| --- | --- | --- | --- |
| 1. |  |  |  |
| 2. |  |  |  |
| 3. |  |  |  |
| 4. |  |  |  |

* 1. Proposed procurement (purchase) arrangement under the sub project

To purchase goods, works & services, the PI will follow the procurement (purchase) procedures as described in the Project Operation Manual. The PI has prepared a procurement plan and procurement schedule for goods to be procured under the sub project. The Procurement Plan and Procurement Schedule for first 6 months is attached at **Annex XII-A & B**.

* 1. Delegation of Authority
* The PI has proper delegation of powers (DoP) approved from the Board of Directors/ Management Committee/ Board of Trustees in respect of authorisation matrix for the administrative and financial approvals. The DOP related to administrative and financial approvals of purchase is with\_\_\_\_.
* The detailed delegation of power as given below:
* The detailed approved procurement policy and procedure of the PI is also attached **Annex XII-C**.

# Risk Assessment and Mitigation Plan

Potential risks that have an adverse bearing on the sub project and appropriate response mechanisms to deal with them have been identified. If some more risks arise in the course of sub project implementation, they will be suitably identified and appropriate mitigation measures would be evolved. The risks identified along with the possible mitigation/enhancement measures are given below:

**Table 25: Risk Assessment and Mitigation Matrix**

| **No.** | **Risk** | **Mitigation/enhancement Measures** |
| --- | --- | --- |
| 1 | Availability of encumbrance free land for construction of DCS/ BMC building. | Adequate care will be taken by the PI to ensure encumbrance free land for construction of DCS/ BMC building at village level. Only the land owned by DCS or taken on lease from Government/Gram Panchayat will be used for construction of the buildings. |
|  | Increase in cost of steel, cement, equipment and manpower during the project implementation. | Adequate provision for price contingency has been considered while estimating the total project outlay which will take care of price escalation of the cost of steel, cement, equipment and manpower during the project implementation. |
| 2 | Addition of waste to the environment at location of the plant. | * Modernisation of dairy plants will reduce solid losses and put lesser load on the ETP. * Energy efficient systems will be put in place in the plant for reduction in requirement of fuel and water per litre of milk. * Effluent Treatment in the plant premises will be set-up and ensure its regular operation. * Waste management practices at the plant level will be adopted and suitable training of staff for the same will be done. |
| 3 | Less availability of adequate certified/TL fodder seeds. | Proper planning and regular follow up with ICAR/NSC and Seed Production Agencies to ensure availability of certified/TL seeds. |
| 4 | Inability to maximize the participation of milk producers. | * Effective implementation of disclosure policy at village level. * Awareness campaigns at village level will be conducted. * Regular monitoring will be done to identify the gaps in targeted number of milk producers and actual participation. * Robust grievance redressal mechanism will be set by PI related to exclusion /denial of opportunity to participate. |
| 5 | Resistance for ear tagging of animals by the producers | * Awareness meetings regarding benefits of ear tagging will be conducted. |

# Environmental and Social aspects

* 1. Impact on environment
* Necessary Environmental/Statutory Clearance (EC) from concerned regulatory authority has been obtained by the PI, for setting-up of new dairy plant and for establishment of new feed & feed supplement manufacturing infrastructure, as given below:
  + Clearance from Pollution Control Board for establishment of ETP
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The PI has filled the necessary check list of environmental impacts which is given in **Annex XIII**.
* Due to the nature of activities proposed under the project, there will not be any anticipated change/ alteration of land use and it will be in confirmation to the approved Master Plan/Development Plan of the area.
* The project would put less strain on environment even after increase in capacity of infrastructure for procurement and processing as it would involve use of energy efficient systems, automation and less vehicular movements in villages.
* The setting-up of automated milk processing facility is expected to reduce energy and water consumption. Improved systems would help recirculation of water in dairy plant so as to reduce water consumption. It will also help in reducing milk solid waste. This will reduce the volume of effluents generated in the plant resulting in reduction of carbon footprint at the plant level.
* The project will promote the usage of renewable energy (solar) which can be used by the village level institutions for meeting their daily electricity requirement for operating BMC, AMCU etc. This will also act as platform to promote the usage of clean energy, which will help in reducing carbon footprint at the village level.
* The investments envisaged under the project will help adopting the energy efficient technologies which will result in considerable savings in the operational cost of dairy plants. The project will also help in reducing the pressure on natural resources like use of water in dairy plant, promote use of renewable source of energy like solar energy and use of agro-waste as replacement of fossil fuels, etc.
* The project in no ways either directly or indirectly poses threat to the biodiversity as the construction activities proposed does not involve extensive clearing or modification of vegetation. If at all any/some tree removal is required, then compensatory tree plantation/landscaping will be done at an appropriate scale.
* During the construction, working environment, health and safety of workers will be taken care of in compliance with the existing laws.
  1. Land requirement under the project
* The project does not envisage any acquisition of land, rehabilitation and resettlement in the project area.
* Village level institutions would be set up at the building arranged by the union.
* The union already possess excess land to build new dairy plants, compound cattle feed and mineral mixture plants.
* For construction of the DCS/BMC building, only the encumbrance free land owned by DCS or taken on lease from Government/Gram Panchayat will be used.
  1. Impact on society
* The positive impacts of the project would help in increasing income of milk producers, creation of employment and availability of safe milk to consumers.
* Increased income opportunity for milk producers will also encourage more people to adopt dairying as a source of livelihood.
  1. **Categorization of Project**
* Since the land proposed for establishment of new plant under the project is owned by the PI and is encumbrance free, the project will not require any rehabilitation and resettlement of people in the project area. Activities such as strengthening marketing & ICT infrastructure and productivity enhancement will not lead to any adverse impact.  Considering the extent of environmental and social impacts, this project is likely to have minimal adverse impact on environment and society. As per the “JICA Guidelines for Environmental and Social Considerations”, the Project will be categorized as “C”.

# Key Performance Indicators

* 1. Key Performance Indicators

Detailed year-wise Key Performance Indicators (KPIs) of the sub project are given in the Table below:

**Table 26: Key Performance Indicators of the project**

| **No.** | **Project Performance Indicators** | **Unit** | **Base-line figure**  **(Yr \_\_\_\_)** | **Incremental Targets** | | | | | **EOP**  (Cumulative Targets ) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Yr 1 (\_\_\_)** | **Yr 2 (\_\_\_)** | **Yr 3 (\_\_\_)** | **Yr 4 (\_\_\_)** | **Yr 5 (\_\_\_)** |
| **A** | **Strengthening Milk Procurement Infrastructure** | | | | | | | | |
| A1 | New DCS/MPI to be set up | ‘Nos. |  |  |  |  |  |  |  |
| A2 | DCS/MPI to be strengthened | ‘Nos. |  |  |  |  |  |  |  |
| A3 | DCS Building to be established | ‘Nos. |  |  |  |  |  |  |  |
| A4 | DCS/MPI to be covered through Electronic Testing Equipment (AMCU/DPMCU) | ‘Nos. |  |  |  |  |  |  |  |
| A5 | Additional Producers to be enrolled | ‘000 Nos. |  |  |  |  |  |  |  |
| A6 | % of women members of total members enrolled | % |  |  |  |  |  |  |  |
| A7 | Capacity of BMCs to be installed | TLPD |  |  |  |  |  |  |  |
| A9 | BMC Building to be established | ‘Nos. |  |  |  |  |  |  |  |
| A10 | Methylene Blue Reduction time (MBRT) of raw milk | in mins |  |  |  |  |  |  |  |
| A11 | Milk Procurement (Annual) | TKgPD |  |  |  |  |  |  |  |
| **B** | **Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed)** | | | | | | | | |
| B1 | Milk Processing Capacity to be created | TLPD |  |  |  |  |  |  |  |
|  | Quantity of milk processed in upgraded/new plants | TLPD |  |  |  |  |  |  |  |
|  | Reduction in effluent generation  *(in case of refurbishment of plant)* | % |  |  |  |  |  |  |  |
|  | Reduction in electricity usage *(in case of refurbishment of plant)* | KWH/ litre of milk processed |  |  |  |  |  |  |  |
|  | Reduction in usage of fossil fuels *(in case of refurbishment of plant)* | Litres/ litre of milk processed |  |  |  |  |  |  |  |
| B2 | Value Added Products Capacity to be created | TLPD/ MTPD |  |  |  |  |  |  |  |
|  | Product 1 \_\_\_\_ | TLPD/ MTPD |  |  |  |  |  |  |  |
|  | Product 2 \_\_\_\_ | TLPD/ MTPD |  |  |  |  |  |  |  |
|  | Product 3 \_\_\_\_ | TLPD/ MTPD |  |  |  |  |  |  |  |
| B3 | Feed & Feed Supplement Manufacturing capacity to be created | MTPD |  |  |  |  |  |  |  |
|  | Cattle Feed | MTPD |  |  |  |  |  |  |  |
|  | Bypass Protein | MTPD |  |  |  |  |  |  |  |
|  | Mineral Mixture | MTPD |  |  |  |  |  |  |  |
| **C** | **Support for Marketing Infrastructure** | | | | | | | | |
| C1 | Milk Parlour | ‘Nos. |  |  |  |  |  |  |  |
| C2 | Walk-in-Cold Store | ‘Nos. |  |  |  |  |  |  |  |
| C3 | Insulation for Vans | ‘Nos. |  |  |  |  |  |  |  |
| C4 | Liquid Milk Sale by the PI | TLPD |  |  |  |  |  |  |  |
| C5 | % increase in the sales volume of Value Added Products | % |  |  |  |  |  |  |  |
| C6 | Revenue of participating institutions from milk and dairy products | Rs. in million |  |  |  |  |  |  |  |
| **D** | **Support for ICT** | | | | | | | | |
| D1 | DCS to be covered under AMCS | ‘Nos. |  |  |  |  |  |  |  |
| **E** | **Productivity Enhancement** | | | | | | | | |
| **E1** | **Calf Rearing Programme (CRP)** | | | | | | | | |
| 1 | Villages to be covered | Nos. |  |  |  |  |  |  |  |
| 2 | Pregnant Animals to be covered | Nos. |  |  |  |  |  |  |  |
| 3 | Female Calves to be covered | Nos. |  |  |  |  |  |  |  |
| **E2** | **Animal Nutrition Advisory Services** | | | | | | | | |
| 1 | Villages to be covered | Nos. |  |  |  |  |  |  |  |
| 2 | Farmers to be covered | Nos. |  |  |  |  |  |  |  |
| 3 | Animas to be covered | Nos. |  |  |  |  |  |  |  |
| **E3** | **Fodder Development** | | | | | | | | |
| 1 | Fodder seed distributed |  |  |  |  |  |  |  |  |
|  | * Fodder Seed distributed | MT |  |  |  |  |  |  |  |
|  | * Plantation of root/stem cuttings | Lakh nos. |  |  |  |  |  |  |  |
|  | * Plantation of fodder trees | Lakh nos. |  |  |  |  |  |  |  |
| 2 | Mower distributed | Nos. |  |  |  |  |  |  |  |
|  | * High speed wet biomass management unit | Nos. |  |  |  |  |  |  |  |
|  | * Upto 5 HP | Nos. |  |  |  |  |  |  |  |
|  | * 5 to 15 HP | Nos. |  |  |  |  |  |  |  |
|  | * Over 15 HP | Nos. |  |  |  |  |  |  |  |
| 3 | Chaff Cutter distributed (power/manual) | Nos. |  |  |  |  |  |  |  |
| 4 | Fodder storage godown | Nos. |  |  |  |  |  |  |  |
| 5 | Silage Unit created | Nos. |  |  |  |  |  |  |  |
| 6 | MTC set-up | Nos. |  |  |  |  |  |  |  |
| 7 | Villages to be covered | Nos. |  |  |  |  |  |  |  |
| 8 | Farmers to be covered | Nos. |  |  |  |  |  |  |  |
| F | **Training and Capacity Development** | | | | | | | | |
| F1 | Persons to be trained/capacity developed | ‘Nos. |  |  |  |  |  |  |  |
|  | Officers | ‘Nos. |  |  |  |  |  |  |  |
|  | Staff | ‘Nos. |  |  |  |  |  |  |  |
|  | Farmers | ‘Nos. |  |  |  |  |  |  |  |

* 1. Socio-economic benefits:

The project will provide an avenue for milk producers for sale of milk bringing about a positive change at village level. The project will result in socio-economic benefits by increasing income of milk producers as well as creation of employment.

# Means of Finance and Sub Project Sustainability

* 1. Means of Finance

The PI proposes to avail financial assistance under the project ‘Dairying through Cooperatives – key to sustainable livelihood’ project. The PI will arrange its contribution from its own resources. In this regard, a copy of the Board resolution of the PI is attached at **Annex XIV**.

The total project outlay is Rs. \_\_\_\_ Lakh with Rs. \_\_\_\_ Lakh as grant-in-aid, Rs. \_\_\_\_ Lakh as loan and Rs. \_\_\_\_ Lakh as State/PI’s contribution. Component wise break-up of loan, grant and State/PI’s contribution is given below:

**Table 27: Component wise Financial Outlay**

| **No.** | **Component** | **Financial Outlay (Rs. in Lakh)** | | | |
| --- | --- | --- | --- | --- | --- |
| **ODA Loan** | **Grant** | **State/PI's Contribution** | **Total** |
| A | Strengthening Milk Procurement infrastructure |  |  |  |  |
| B | Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed) |  |  |  |  |
| B.1. | - Milk processing facilities and manufacturing facilities for Value Added Products |  |  |  |  |
| B.2. | - Feed & feed supplements manufacturing infrastructure |  |  |  |  |
| C | Support for Marketing infrastructure |  |  |  |  |
| D | Support for ICT Infrastructure |  |  |  |  |
| E | Productivity Enhancement |  |  |  |  |
| F | Training & Capacity Development |  |  |  |  |
|  | **Total** |  |  |  |  |

The year wise financial outlay is given in the table below:

**Table 28: Total Financial Outlay of the Sub Project (Rs. Lakh)**

| **No.** | **Particulars** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A | Strengthening Milk Procurement infrastructure |  |  |  |  |  |  |
| B | Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed) |  |  |  |  |  |  |
| B1 | Milk processing facilities and manufacturing facilities for Value Added Products |  |  |  |  |  |  |
| B2 | Feed & feed supplements manufacturing infrastructure |  |  |  |  |  |  |
| C | Support for Marketing infrastructure |  |  |  |  |  |  |
| D | Support for ICT Infrastructure |  |  |  |  |  |  |
| E | Productivity Enhancement |  |  |  |  |  |  |
| F | Training and Capacity Development |  |  |  |  |  |  |
|  | **Total** |  |  |  |  |  |  |
|  | **Grant (GoI)** |  |  |  |  |  |  |
|  | **Loan** |  |  |  |  |  |  |
|  | **PI’s/State’s Contribution** |  |  |  |  |  |  |

Component and year wise physical target and financial outlay is given in **Annex XV**.

* 1. Security

The detail of the security available with the PI is given below:

**Table 29: Details of security available with the PI**

| **Particulars** | **Location** | **Area**  **(in acres)** | **Ownership** | **Book value (Rs. crore)** |
| --- | --- | --- | --- | --- |
| Land | PQR |  | Owned by PI |  |
| LMN |  |  |
| Chilling centre 1 |  |  |
| Building | PQR |  | Owned by PI |  |
| Chilling centre 1 |  |  |
| Plant/machinery | PQR |  | Owned by PI |  |
| Chilling centre 1 |  |  |
| **Total** | | | |  |

| **Particulars** | **Amount (Rs. In Lakh)** |
| --- | --- |
| Loan envisaged under current proposal |  |
| **Total loan** |  |
| Net block |  |
| Total assets to be created under project |  |
| **Total assets** |  |
| **Security times** |  |

The security available with the PI is \_\_\_ times more than the loan amount of Rs. \_\_\_\_\_ Lakh.

* 1. Sustainability of the sub project activities
* Under strengthening milk procurement infrastructure component, setting up of new DCS and installation of BMCs & AMCUs have been envisaged. To make new DCS sustainable, initially for 3 years, salary of the DCS secretary shall be provided on tapering basis under the project. After that it is expected that DCS would be collecting adequate milk so as to meet DCS management expenses from revenue generated from the weight volume difference/ DCS commission/ local milk sale to make the DCS self-sustainable. The sustainability of new DCS is given in **Annex XVI**. Also, the sustainability of BMC is given in **Annex XVII**.
* The PI will continue the implementation of Productivity Enhancement activities from its own funds to reap benefits of nutritional interventions in the long run.
  1. Financial analysis of the sub project
* The PI has proposed to avail Rs. \_\_\_\_ loan for establishment of new milk processing plant along with value added products facilities, feed & feed manufacturing plant, DCS/BMC building, marketing and ICT infrastructure.
* Based on savings and improved sales realisation by establishment of new milk processing plant/ value added product plant/ feed & feed manufacturing plant, the projected material balancing statement and projected operating statement for the project is worked out and is attached at **Annex XVIII**. The summary of financial indicators is given in the Table below:

**Table 30: Summary of financial indicators for the project**

| **No** | **Financial Indicators** | **Base case** | **Sensitivity**  (10% reduction in procurement & sales) | **Norms** |
| --- | --- | --- | --- | --- |
| 1 | Return on investment (RoI) |  |  | >10% |
| 2 | Debt Service Coverage Ratio (DSCR) |  |  | >1.50 |

* 1. Sensitivity analysis

Considering the projected operations of the PI, the Return on Investment (ROI) and Debt Service Coverage Ratio (DSCR) works out to **\_\_\_\_%** and **\_\_\_\_ times** respectively at 100% procurement and sales. After providing 10 % sensitivity in both milk procurement and sales volume i.e. 10% reduction in both procurement and sales, the projected ROI and DSCR works out to \_\_\_\_ % and \_\_\_\_\_ times respectively.

\*\*\*

Annex I: List of existing chilling, testing and processing infrastructure

* Milk chilling plant

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Location** | | | **Capacity** | **Owned by** *(PI/ DCS)* | **Status** *(functional/non-functional)* |
| **District name** | **Taluka Name** | **Village Name & Census code** |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |

* Bulk Milk Coolers (BMC)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Location** | | | **Capacity** | **Owned by** *(PI/ DCS)* | **Status** *(functional/non-functional)* |
| **District name** | **Taluka Name** | **Village Name & Census code** |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |

* Automatic Milk Collection Units (AMCU)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Location** | | | **Owned by** *(PI/ DCS)* | **Status** *(functional/ non-functional)* |
| **District name** | **Taluka Name** | **Village Name & Census code** |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |

* Data Processing and Milk Collection Units (DPMCU)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Location** | | | **Owned by** *(PI/ DCS)* | **Status (***functional/ non-functional)* |
| **District name** | **Taluka Name** | **Village Name & Census code** |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |

* Electronic Adulteration Testing Machine

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Location** | | | **Owned by** *(PI/ DCS)* | **Status** *(functional/ non-functional)* |
| **District name** | **Taluka Name** | **Village Name & Census code** |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |

* Milk Testing Laboratories

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Location** | | | **Capacity** | **Owned by** *(PI/ DCS)* | **Status** *(functional/non-functional)* |
| **District name** | **Taluka Name** | **Village Name** |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |

* Milk processing plant

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Location** | | | **Capacity** | **Owned by** *(PI/ DCS)* | **Status** *(functional/non-functional)* |
| **District name** | **Taluka Name** | **Village Name** |
| 1 |  |  |  |  |  |  |

Note: Rows may be added under each category suitably

Annex II: List of villages proposed for setting-up of new DCS/ strengthening of existing DCS

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **District name** | **Taluka Name** | **Village Name** | **Census Code**  (as per Human Census 2011) | **Status** *(registered/ un-registered)* | **Existing Milk Production (TKgPD)** | **Existing Milk marketable surplus (TKgPD)** | **Expected Milk procurement (TKgPD) (1st year of operation)** |
| 1 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |

Annex III: List of proposed village wise DCS for installation of Electronic Milk Testing Equipment (AMCU)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **District name** | **Taluka Name** | **Village Name** | **Census Code**  (as per Human Census 2011) | **Name of DCS** | **Existing Milk procurement (TKgPD)** | **No of members (Nos.)** | **Existing testing facility with DCS** |
| 1 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |

Annex IV: List of proposed BMC village location and capacity

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **District name** | **Taluka Name** | **Village Name** | **Census code** (as per Human Census 2011) | **Number of villages to be linked with BMC village** | **Milk procurement (TKgPD) (BMC DCS+linked villages)** | | **Proposed No. of BMC** | **Proposed Capacity (KL)** |
| **Existing (2020-21)** | **Projected (2025-26)** |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |

Annex V: Details of existing land area & civil structure and existing plant equipment

1. **Details of existing land area and civil structure**

*(Information to be provided for each dairy plant separately if the PI has more than one dairy plant)*

Name, Location & address of dairy plant: \_\_\_\_\_\_

| **Sr No** | **Description** | **Area/ Volume** | **Unit** | **Number of floors** | **Year of construction/ processing** | **Present condition (Good/Needs renovation)** | **Remarks** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | **Total land area of the plant\*** |  | Acre |  |  |  |  |
| **2** | **Total built up area\* (ground floor area only)** |  | Sq m |  |  |  |  |
| **3** | **Total Road & Hard Park area** |  | Sq m |  |  |  |  |
| **4** | **Area available for future expansion** |  | Acre |  |  |  |  |
| **5** | **Production Block details#** | | | | | | |
| (i) | Milk reception block (inclusive of can & tanker reception) |  | Sq m |  |  |  |  |
| (ii) | Liquid milk processing & packaging block |  | Sq m |  |  |  |  |
| (iii) | Milk Powder Plant |  | Sq m |  |  |  |  |
| (iv) | Milk Product Block (provide product names in remarks column; In case of individual product blocks provide separate areas) |  | Sq m |  |  |  |  |
| **6** | **Utilities Block details#** | | | | | | |
| (i) | Refrigeration block |  | Sq m |  |  |  |  |
| (ii) | Steam generation block |  | Sq m |  |  |  |  |
| (iii) | Electric Substation block |  | Sq m |  |  |  |  |
| (iv) | Transformer Yard |  | Sq m |  |  |  |  |
| (v) | Fuel storage area |  | Sq m |  |  |  |  |
| (vi) | Waste disposal area |  | Sq m |  |  |  |  |
| (vii) | Water storage & treatment block |  | Sq m |  |  |  |  |
| (viii) | Water storage tank capacity |  | Cu m |  |  |  |  |
| (ix) | Effluent Treatment Plant |  | Sq m |  |  |  |  |
| **7** | **Non industrial Blocks#** | | | | | | |
| (i) | Administrative block |  | Sq m |  |  |  |  |
| (ii) | Workers Amenities block |  | Sq m |  |  |  |  |
| (iii) | Security cabin |  | Sq m |  |  |  |  |
| (iv) | Toilet block |  | Sq m |  |  |  |  |
| (v) | Car park/cycle stand |  | Sq m |  |  |  |  |

\* - Please provide Plant Site Layout drawing, if available

# - Please provide ground floor area for each building to ascertain free land area available for expansion/new installation.

Also provide equipment layout drawings, if available

1. **Details of existing plant equipment**

*(Information to be provided for each dairy plant separately if the PI has more than one dairy plant)*

Name, Location & address of dairy plant:

Capacity of Plant: \_\_\_\_ TLPD

***Please add rows wherever required in order to provide complete details of plant & machinery)***

| **Sr No** | **Section** | **Area** | **Existing Equipment name** | **Type** | **Capacity** | **Manufacturer** | **Year of installation** | **Working condition** | **Remarks** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A** | **Liquid milk** | **Reception** | Can Washer I | Straight/  rotary |  |  |  |  |  |
| Can Washer II | Straight/  rotary |  |  |  |  |  |
| Raw Milk chiller I |  |  |  |  |  |  |
| Raw Milk chiller II |  |  |  |  |  |  |
| **Milk storage** | Raw milk storage Tank/ silo I | Horizontal/Vertical |  |  |  |  |  |
| Raw milk storage Tank/ silo II | Horizontal/Vertical |  |  |  |  |  |
| Raw milk storage Tank/ silo III | Horizontal/Vertical |  |  |  |  |  |
| Pasturised Milk storage Tank/Silo I | Horizontal/Vertical |  |  |  |  |  |
| Pasturised Milk storage Tank/Silo II | Horizontal/Vertical |  |  |  |  |  |
| Pasturised Milk storage Tank/Silo III | Horizontal/Vertical |  |  |  |  |  |
| **Milk processing** | Milk pasteuriser I |  |  |  |  |  |  |
| Milk pasteuriser II |  |  |  |  |  |  |
| Cream separator I | Self / manual cleaning |  |  |  |  |  |
| Cream separator II | Self / manual cleaning |  |  |  |  |  |
| Homogeniser |  |  |  |  |  |  |
| Cream pasteuriser I |  |  |  |  |  |  |
| Cream pasteuriser II |  |  |  |  |  |  |
| **Milk packing** | Milk pouch packing machine I | Pneumatic/ Mechanical |  |  |  |  |  |
| Milk pouch packing machine II | Pneumatic/ Mechanical |  |  |  |  |  |
| Milk pouch packing machine III | Pneumatic/ Mechanical |  |  |  |  |  |
| Milk pouch packing machine IV | Pneumatic/ Mechanical |  |  |  |  |  |
| Horizontal milk storage tank I |  |  |  |  |  |  |
| Horizontal milk storage tank II |  |  |  |  |  |  |
| Horizontal milk storage tank III |  |  |  |  |  |  |
| Crate washer |  |  |  |  |  |  |
| **B** | **Butter making** |  | Butter churn |  |  |  |  |  |  |
| Continuous butter making machine |  |  |  |  |  |  |
| Butter milk silo/tank |  |  |  |  |  |  |
| Butter packing machine | Bulk/ consumer |  |  |  |  |  |
| **C** | **Ghee Making** |  | Ghee boiler I |  |  |  |  |  |  |
| Ghee boiler II |  |  |  |  |  |  |
| Ghee boiler III |  |  |  |  |  |  |
| Ghee clarifier |  |  |  |  |  |  |
| Ghee pouch packing machine |  |  |  |  |  |  |
| Ghee consumer packing machine |  |  |  |  |  |  |
| Ghee Tin (15 kg) packing machine |  |  |  |  |  |  |
| **D** | **Milk powder plant** |  | Milk Silo |  |  |  |  |  |  |
| Evaporator (water evaporation capacity to be provided) | MVR/ TVR |  |  |  |  |  |
| Dryer (water evaporation capacity to be provided) | No of stages |  |  |  |  |  |
| Supply air heater type | FO/ Steam heated |  |  |  |  |  |
| Vibro-fluidiser |  |  |  |  |  |  |
| Powder bulk packing | Manual/ Automatic |  |  |  |  |  |
| Powder consumer packing | Semi- auto/ Automatic |  |  |  |  |  |
| **E** | **UHT** |  | Milk steriliser |  |  |  |  |  |  |
| Aseptic filling machine |  |  |  |  |  |  |
| Tray packing |  |  |  |  |  |  |
| Shrink wrapping |  |  |  |  |  |  |
| **F** | **Indigenous products** |  | *Please mention equipment name…….* |  |  |  |  |  | Details of major equipment to be provided |
| *Please mention equipment name…….* |  |  |  |  |  |
| *Please mention equipment name…….* |  |  |  |  |  |
| *Please mention equipment name…….* |  |  |  |  |  |
| **G** | **Electricals** |  | HT breaker panel | OCB/ MOCB/ VCB |  |  |  |  |  |
| Distribution transformer | Onload / off load tap changer |  |  |  |  |  |
| Power control centre |  |  |  |  |  |  |
| Capacitor bank |  |  |  |  |  |  |
| DG set I |  |  |  |  |  |  |
| DG set II |  |  |  |  |  |  |
| Sub Station |  |  |  |  |  |  |
| **H** | **Refrigeration** |  | Refrigeration compressor I (high stage) | Reciprocating/ Screw |  |  |  |  |  |
| Refrigeration compressor II (high stage) | Reciprocating/ Screw |  |  |  |  |  |
| Refrigeration compressor III (high stage) | Reciprocating/ Screw |  |  |  |  |  |
| Refrigeration compressor (low stage) | Reciprocating/ Screw |  |  |  |  |  |
| Economiser |  |  |  |  |  |  |
| Condensors | Atmospheric/ Evaporative/ PHE/ Shell & tube |  |  |  |  |  |
| Condensor water pumps |  |  |  |  |  |  |
| Ice bank tank (coil length to be provided) |  |  |  |  |  |  |
| Ice silo (coil length to be provided) |  |  |  |  |  |  |
| Chilled water pumps |  |  |  |  |  |  |
| Receiver I |  |  |  |  |  |  |
| Receiver II |  |  |  |  |  |  |
| Refrigerant pump |  |  |  |  |  |  |
| Milk Cold store |  |  |  |  |  |  |
| Butter cold store |  |  |  |  |  |  |
| Butter deep freeze |  |  |  |  |  |  |
| **I** | **Steam generation** |  | Boiler I | Fire tube/ Water tube |  |  |  |  |  |
| Boiler II | Fire tube/ Water tube |  |  |  |  |  |
| Boiler III | Fire tube/ Water tube |  |  |  |  |  |
| Fuel oil storage tank |  |  |  |  |  |  |
| Coal handling equipment |  |  |  |  |  |  |
| CNG storage |  |  |  |  |  |  |
| **J** | **Air Compressor** |  | Compressor I | Reciprocating/ Screw |  |  |  |  |  |
| Compressor II | Reciprocating/ Screw |  |  |  |  |  |
| Air Receiver | Vertical/horizontal |  |  |  |  |  |
| **K** | **Hydroflow** |  | Hydroflow tank I |  |  |  |  |  |  |
| Hydroflow tank II |  |  |  |  |  |  |
| Raw water pumps |  |  |  |  |  |  |
| Water softening plant |  |  |  |  |  |  |
| RO plant |  |  |  |  |  |  |
| DM water plant |  |  |  |  |  |  |
| Treated water pumps |  |  |  |  |  |  |
| **L** | **Effluent treatment plant** |  | Effluent treatment plant | Aerobic/ Anaerobic & aerobic |  |  |  |  |  |

Annex VI: Filled-in site selection format

* 1. **Milk processing plant**

Name of the proposed project : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Location of Site : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

District : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Land map : Enclosed /Not available

1. Survey map at the site showing :

* North point :
* Scale (mm 1:800) :
* Area and Dimensions of : \_\_\_\_\_\_\_\_\_\_Sq.Mtrs. [\_\_\_\_ M x \_\_\_ M]

the plot

* Permanent & Temporary :

Structure

* Electrical line (HT/LT with : \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_

KV)

* Telephone lines (Trunk/Local) : \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_
* Existing sewerage/storm

Water drains, if any : Yes/no

* Existing important tree :
* Well, ponds :
* Mounds :
* Contours :

Note: The survey map if available should be enclosed. Otherwise a rough sketch showing important items out of the above list should be prepared and enclosed.

3. Source of land and survey maps : \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_

If available

4. R.L. of site, if site is fairly flat : \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_

5. R.L. of high and low points, if site : \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Undulatory

6. Maximum HFL at site : \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Cms.

7. Frequency of HFL : \_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. R.L. of nearest National : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Or State Highway

9. Minimum depth of subsoil : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

water (below Existing ground)

10. Type of foundations used in the vicinity : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Of site or the nearest town for 2 to 3

Storeyed building

11. Local information on the soil bearing : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Capacity

12. Local information on the type of soil : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Silty/Boulder/ Rock)

Encountered at the site at shallow and

Deep depths

13. Soil testing report from a nearby place : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

to be enclosed if available

14. Nearest Railway Station :

* Distance of site : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* M.G./B.G./N.G. : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Important trains passing through :

Station

* Both passenger and goods : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Railway zone : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. Is a railway siding possible : Yes /No

1. Name & address of DRM to be : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Contacted

17. Nearest Highway :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

18. a) Distance from nearest :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Highway

b) Distance from Municipal :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Limits

1. General width of the roads in the Area :\_\_\_\_\_\_\_\_\_\_ Metres

20. Approach road to the site, if any : \_\_\_\_\_\_\_\_\_\_Yes/No

21. Length of approach road required : \_\_\_\_\_\_\_\_\_\_ Metres

1. Nearest source of

a) Natural water supply : \_\_\_\_\_\_\_\_\_\_\_\_\_ Well/River/Canal/Pond

b) Municipal water supply : \_\_\_\_\_\_\_\_\_\_\_\_\_Well/River/Canal/Pond

23. Is Municipal supply possible ? : Yes / No

If yes, size of existing Pipe line at the : \_\_\_\_\_\_\_Cms.

Nearest Point of municipal supply

24. Any open wells in the area : Yes / No

a) Lowest level of sub-soil : \_\_\_\_\_\_\_\_ Metres

Water encountered in

Poorest monsoon season

b) General level of water : \_\_\_\_\_\_ Metres

c) Yield of well : \_\_\_\_\_\_Metres/hr.

1. Any tubewells in the area/ : Yes /No

Neighbourhood

a) Size of the well & depth : \_\_\_\_\_\_\_\_ Cms. \_\_\_\_\_\_\_\_Meters

b) HP of pump : \_\_\_\_\_\_\_\_\_HP

c) Yield of tube well : \_\_\_\_\_\_\_Litres/hr.

d) Strata chart if available : Yes / No

e) Distance of tubewell from : \_\_\_\_\_\_\_\_Metres

Site

1. Is any sanction required from : \_\_\_\_\_\_\_\_\_Metres

Local authorities for drilling of tube

Wells

1. Address of nearest office of Central : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ground Water Board or any similar

State agency

1. A hydrological map of the area, : Yes/No.(to be enclosed if available)

If possible

1. Effluent disposal :
2. Distance and location of nearest : \_\_\_\_\_\_\_\_\_\_\_Metres

Possible place

1. Capacity of municipal drain/ : \_\_\_\_\_\_\_\_\_\_\_Cusece

Nullah etc.

1. Is it required to be treated before : \_\_\_\_\_\_\_\_\_\_\_\_ Yes/No

Disposal as per the rules of local

Authorities (If yes, to indicate the Characteristics of the

treated Efluent before disposal such as

BOD & PH etc.)

1. How is effluent of the nearby :

Industries disposed off

1. Power Supply

a) Is any HT line passing throuth site : ­­­\_\_\_\_\_\_\_ Yes/No

(If yes, indicate voltage and Whether it is agricultural feeder)

b) If no, distance of nearest HT line : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Metres

From site

c) Authorities to be approached : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

for required electrical load.

(Electrical load informations must be

available with the officer visiting site).

d) A copy of tariff rules, if possible : (to be enclosed)

e) Authorities for temporary power : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

if available

1. Upto what load can LT power be : \_\_\_\_\_\_\_\_\_\_\_\_\_\_ KVA

made Available

1. Telephone line

a) Distance of nearest telephone line : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Metres

b) Authority to be approached for :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

sanction

32. Industries in the neighbourhood :

33. a) Nearest Cattle Feed Plant : \_\_\_\_\_\_\_\_\_\_\_\_\_\_KM

b) Nearest Chilling Centre : \_\_\_\_\_\_\_\_\_\_\_\_\_\_KM

c) Nearest Dairy : \_\_\_\_\_\_\_\_\_\_\_\_\_\_KM

d) Nearest industries using milk with :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Details of capacity etc. and their

Common problems

1. General water in the area :
2. Wind or dust storms and their fre- :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

quency, direction of wind, velocity

b) Yearly rainfall : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_mm.

c) Monsoon period : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_month

d) Maximum & minimum temp. : \_\_\_\_\_\_\_\_\_\_\_\_Deg.C.\_\_\_\_\_\_\_\_\_Deg.C.

e) Type of trees & plantation in the : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Neighbourhood

f) Snow fall : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_mm.

1. Name of local reputed contractors:
2. Civil : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Electrical/Mechanical : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Sanitary : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Suppliers : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Transporters : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Chamber of commerce : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

36. Address of local PWD Office : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Minimum wages applicable in the : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Rs./day

Area.

1. Addresses of :
2. Factory inspector : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Boiler inspector : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Electrical Inspector : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Explosive inspector : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Civil Supplies Deptt. : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

39. Nearest Cement Factory : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

40. Address of nearest HSL/TATA/ : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

TISCO stockyard

1. Local materials used for construction : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

And their rates

1. Location & distance of the nearest : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Petrol/diesel filling station.

* 1. **(*Same format to be used for site selection of feed & feed supplement manufacturing infrastructure*)**

Annex VII: Civil and equipment requirement along with specifications

1. For establishment of \_\_\_\_ TLPD capacity milk processing plant
2. **Summary of Cost estimates**

|  |  |  |
| --- | --- | --- |
| **No.** | **Description** | **Amount**  **(Rs. Lakh)** |
| 1 | Civil Works |  |
| 2 | Processing & Production Equipment |  |
| 3 | Service Equipment |  |
| 4 | Miscellaneous Equipment |  |
| 5 | Erection |  |
| 6 | Technical Service Fee @ 5.5% On Sl. Nos. 1 – 5 |  |
| 7 | GST on TSF @ 18% |  |
|  | **Total Project Cost ( Rs. Lakh)** |  |

1. **Cost estimates – Civil works**

| **Description** | **Qty** | **Unit** | **Unit Rate Rs** | **Sub Total Rs.** | **Amount Rs. Lakh** |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
| **CIVIL WORKS** |  |  |  |  |  |
|  |  |  |  |  |  |
| **LAND AND DEVELOPMENT** |  |  |  |  |  |
| **LAND AND DEVELOPMENT** |  |  |  |  |  |
| Land development, landscaping, soil investigation & land survey |  |  |  |  |  |
|  |  |  |  |  |  |
| **INDUSTRIAL BUILDING** |  |  |  |  |  |
| **INDUSTRIAL BUILDING** |  |  |  |  |  |
| Production Block (including cold store, deep freezes) |  |  |  |  |  |
| Service block |  |  |  |  |  |
| Misc. Industrial buildings: Fuel yard, Transformer yard, foundation of milk silos, ammonia and air compressors, ice silos/IBT, boilers and chimney, structural pipe bridge etc. |  |  |  |  |  |
|  |  |  |  |  |  |
| **STORAGE FACILITIES/BUILDINGS** |  |  |  |  |  |
| **STORAGE FACILITIES/BUILDINGS** |  |  |  |  |  |
| Powder godown |  |  |  |  |  |
| Packing material store |  |  |  |  |  |
| Chemical store |  |  |  |  |  |
| Spare parts store |  |  |  |  |  |
| General Godown |  |  |  |  |  |
| Scrap Yard |  |  |  |  |  |
|  |  |  |  |  |  |
| **NON INDUSTRIAL BUILDINGS** |  |  |  |  |  |
| **NON INDUSTRIAL BUILDINGS** |  |  |  |  |  |
| Administrative block |  |  |  |  |  |
| Workers Amenities |  |  |  |  |  |
| Security complex |  |  |  |  |  |
| Toilet block |  |  |  |  |  |
| Parking cycle/scooter stand |  |  |  |  |  |
| MS gates |  |  |  |  |  |
|  |  |  |  |  |  |
| **COMPOUND WALL AND OTHER BUILDINGS** |  |  |  |  |  |
| **COMPOUND WALL AND OTHER BUILDINGS** |  |  |  |  |  |
| Compound wall/Chain link fence |  |  |  |  |  |
|  |  |  |  |  |  |
| **BUILDING FURNISHINGS** |  |  |  |  |  |
| **OFFICE FURNISHINGS AND EQUIPMENT** |  |  |  |  |  |
| Lab furniture |  |  |  |  |  |
| Site Furniture |  |  |  |  |  |
| Misc. Furnishing |  |  |  |  |  |
|  |  |  |  |  |  |
| **EFFLUENT TREATMENT PLANT** |  |  |  |  |  |
| **EFFLUENT TREATMENT PLANT** |  |  |  |  |  |
| Civil, mechanical, electrical & erection works for ETP for 2 LLPD dairy |  |  |  |  |  |
|  |  |  |  |  |  |
| **ROAD AND PAVEMENTS** |  |  |  |  |  |
| **ROAD AND PAVEMENTS** |  |  |  |  |  |
| Concrete roads /Hard Park |  |  |  |  |  |
|  |  |  |  |  |  |
| **ELECTRIFICATION** |  |  |  |  |  |
| **INTERNAL ELECTRIFICATION** |  |  |  |  |  |
| Electrification Contract |  |  |  |  |  |
| Lighting Fixtures and Fans |  |  |  |  |  |
|  |  |  |  |  |  |
| **WATER SUPPLY AND DRAINAGE** |  |  |  |  |  |
| **WATER SUPPLY AND DRAINAGE** |  |  |  |  |  |
| UG sump 2.0 Lakh Litres |  |  |  |  |  |
| Storm water drainage |  |  |  |  |  |
| Rain water harvesting with recharge wells |  |  |  |  |  |
| External sanitary line |  |  |  |  |  |
|  |  |  |  |  |  |
| **CONSULTANTS SERVICES** |  |  |  |  |  |
| **CONSULTANTS SERVICE FEES** |  |  |  |  |  |
| Architects & structural consultants fees @ 3.5% of civil works |  |  |  |  |  |
|  |  |  |  |  |  |
| **CIVIL CONTINGENCIES** |  |  |  |  |  |
| **CIVIL CONTINGENCIES** |  |  |  |  |  |
| Civil contingencies @ 6 % |  |  |  |  |  |
|  |  |  |  |  |  |
| **TOTAL FOR CIVIL WORKS** |  |  |  |  |  |

1. **Cost estimates – Equipment**

| **Description** | **Capacity** | **Qty** | **Unit Price** | **Total Price** | **Total Price in Lakh Rs** |
| --- | --- | --- | --- | --- | --- |
| **PROCESS AND PRODUCTION EQUIPMENT** |  |  |  |  |  |
| **RECEPTION EQUIPMENT** |  |  |  |  |  |
| **RECEPTION EQUIPMENT INCLUDING STORAGE** |  |  |  |  |  |
| Tanker unloading hose with fittings ( 2 No. for unloading, 2 no. for CIP) |  |  |  |  |  |
| Tanker unloading pump |  |  |  |  |  |
| Disc type Inline strainer |  |  |  |  |  |
| SS De-aeration vessel |  |  |  |  |  |
| Reception & tanker CIP Control panels |  |  |  |  |  |
| Self supported hot dip galvanised Steel platforms for approach of tanker man ways with SS railing |  |  |  |  |  |
| Raw Milk Chiller (10 - 4 Deg C) |  |  |  |  |  |
| Raw Milk Silos |  |  |  |  |  |
| CIP Return Pump |  |  |  |  |  |
| Mass flow meters |  |  |  |  |  |
|  |  |  |  |  |  |
| **CHILLING & PROCESSING EQUIPMENT** |  |  |  |  |  |
| **CHILLING & PROCESSING EQUIPMENT FOR MILK AND CREAM** |  |  |  |  |  |
| Milk transfer pump from RMST to Pasteurizer |  |  |  |  |  |
| Inter silo Milk Transfer/Raw Milk despatch pump |  |  |  |  |  |
| Mass flow meters |  |  |  |  |  |
| Milk Pasteuriser with all accessories |  |  |  |  |  |
| Milk Pasteuriser with accessories for curd milk |  |  |  |  |  |
| Self Cleaning Tripurpose centrifuge with Auto Standardisation Unit |  |  |  |  |  |
| Homogeniser with accessories for milk |  |  |  |  |  |
| Homogeniser with accessories for curd milk |  |  |  |  |  |
| Electric hoist with mono rail structure |  |  |  |  |  |
| Pasteurised Milk Silos ( PMST ) |  |  |  |  |  |
| Pasteurised Milk Silos ( PMST ) |  |  |  |  |  |
| Pasteurised Milk Despatch Pump |  |  |  |  |  |
| Pasteurised Milk Despatch Chiller |  |  |  |  |  |
| Past Milk Inter Silo Transfer pump |  |  |  |  |  |
| Past Milk Silo to Raw Milk Silo Transfer pump |  |  |  |  |  |
| CIP Return Pump |  |  |  |  |  |
| Milk transfer pump to HMST |  |  |  |  |  |
| Milk Re-Chiller for pouch filling lines |  |  |  |  |  |
| Milk Dispatch (tanker loading) hose food grade |  |  |  |  |  |
| Cream balance tank |  |  |  |  |  |
| Cream transfer Pump with VFD |  |  |  |  |  |
| Cream Pasteuriser |  |  |  |  |  |
| Cooling Tower system with pumps |  |  |  |  |  |
| Cream Storage cum Ripening Tank |  |  |  |  |  |
| CIP Return Pump |  |  |  |  |  |
| Cream pump (Lobe) with VFD for transfer of cream to butter section as well as dosing to silo for fat correction |  |  |  |  |  |
|  |  |  |  |  |  |
| **RECONSTITUTION EQUIPMENT** |  |  |  |  |  |
| **Milk RECONSTITUTION SECTION INCLUDING POWDER STORE** |  |  |  |  |  |
| Funnel venturi with pumps |  |  |  |  |  |
| Water heater PHE with water flow meter |  |  |  |  |  |
| Duplex Filters |  |  |  |  |  |
| Reconstitution milk tank |  |  |  |  |  |
| CIP return pump |  |  |  |  |  |
| Milk Recirculation-cum-transfer Pump |  |  |  |  |  |
| Reconstitution milk chiller |  |  |  |  |  |
|  |  |  |  |  |  |
| **LIQUID MILK FILLING EQUIPMENT** |  |  |  |  |  |
| **POUCH FILLING SECTION INCLUDING CRATE WASHING** |  |  |  |  |  |
| Crate washer with drier |  |  |  |  |  |
| Two tier Crate conveyor with pouch collection table for individual machine and conveying of filled crates upto milk cold room |  |  |  |  |  |
| Pouch Filling Machines for Liquid Milk |  |  |  |  |  |
| Milk filling tanks (HMST ) |  |  |  |  |  |
| Milk filling tanks (HMST ) |  |  |  |  |  |
| Left over milk collection & return system |  |  |  |  |  |
| CIP Return Pumps |  |  |  |  |  |
| SS packing table |  |  |  |  |  |
| Electronic weigh scale |  |  |  |  |  |
| Cooling Water balance tank with accessories |  |  |  |  |  |
| Cooling water recirculation pump (SS) |  |  |  |  |  |
| Cooling water PHE Chiller |  |  |  |  |  |
| Trolley mounted leaky pouch collection tank |  |  |  |  |  |
| Leaked pouch dump tank |  |  |  |  |  |
| Inline duplex Strainer |  |  |  |  |  |
| Leaked pouch milk PHE |  |  |  |  |  |
| Leaked pouch milk transfer pump |  |  |  |  |  |
|  |  |  |  |  |  |
| **RINSE MILK RECOVERY SYSTEM** |  |  |  |  |  |
| Rinse milk recovery tank jacketed & insulated |  |  |  |  |  |
| Rinse Milk transfer pump to RMST |  |  |  |  |  |
| Rinse Milk Chiller |  |  |  |  |  |
| CIP Return Pump |  |  |  |  |  |
|  |  |  |  |  |  |
| **BUTTER MAKING EQUIPMENT** |  |  |  |  |  |
| **CONTINUOUS BUTTER MAKING SECTION** |  |  |  |  |  |
| Cream Transfer Pump (lobe) imported |  |  |  |  |  |
| Cream Buffer Tank |  |  |  |  |  |
| Continuous Butter making Machine without provision for automatic salt and moisture correction facility. |  |  |  |  |  |
| Continuous Butter making Machine with provision for automatic salt and moisture correction facility. |  |  |  |  |  |
| Salt Dosing Tank on skid |  |  |  |  |  |
| Dosing Pump |  |  |  |  |  |
| On line moisture And salt measurement and control system |  |  |  |  |  |
| Pasteurised Butter Wash Water insulated Tank |  |  |  |  |  |
| Pasteurised Butter Wash Water Transfer pump |  |  |  |  |  |
| Butter Wash Water Balance Tank |  |  |  |  |  |
| Wash Water circulation pump |  |  |  |  |  |
| Wash Water PHE |  |  |  |  |  |
| Butter Moulding & Wrapping machines |  |  |  |  |  |
| Conveyors for the inter-transfer of packed table butter and also to the cold room. |  |  |  |  |  |
| Butter Milk Storage Tank |  |  |  |  |  |
| Hopper with auger, covers, level sensors, controls |  |  |  |  |  |
| Butter trolleys |  |  |  |  |  |
|  |  |  |  |  |  |
| **LASSI & BUTTER MILK HANDLING SECTION** |  |  |  |  |  |
| Curd Inoculation Tank |  |  |  |  |  |
| Curd Setting Tank |  |  |  |  |  |
| SS Shear Pump |  |  |  |  |  |
| Inoculated Milk/Lassi/Butter Milk transfer pump |  |  |  |  |  |
|  |  |  |  |  |  |
| **FAT RECOVERY SECTION** |  |  |  |  |  |
| Butter Melting Tank |  |  |  |  |  |
| Molten Butter Transfer Pump |  |  |  |  |  |
| Fat Recovery Tank |  |  |  |  |  |
|  |  |  |  |  |  |
| **GHEE MAKING EQUIPMENT** |  |  |  |  |  |
| **GHEE MAKING & PACKING EQUIPMENT** |  |  |  |  |  |
| Butter Positive Displacement pump |  |  |  |  |  |
| Butter Melting Vat with PHE based hot water generator |  |  |  |  |  |
| Molten Butter Transfer Pump |  |  |  |  |  |
| Pre-stratification Tank |  |  |  |  |  |
| Ghee boiler |  |  |  |  |  |
| Ghee transfer pump |  |  |  |  |  |
| Ghee Settling tanks |  |  |  |  |  |
| Ghee Clarifier |  |  |  |  |  |
| Ghee Balance Tank |  |  |  |  |  |
| Ghee storage cum granulation jacketed tanks |  |  |  |  |  |
| Ghee Pouch Packing Machine |  |  |  |  |  |
| Ghee check weighing scale |  |  |  |  |  |
| Ghee residue trolley with tank |  |  |  |  |  |
| SS packing tables |  |  |  |  |  |
| Ghee leaky pouch collection system |  |  |  |  |  |
|  |  |  |  |  |  |
| **CURD MAKING & PACKING** |  |  |  |  |  |
| **CURD, LASSI & BUTTER MILK MAKING & PACKING EQUIPMENT** |  |  |  |  |  |
| Curd milk storage tank |  |  |  |  |  |
| CIP return pump |  |  |  |  |  |
| Culture Preparation Tank |  |  |  |  |  |
| Culture Dosing Pump PD type |  |  |  |  |  |
| Inoculation/curd setting tank for curd |  |  |  |  |  |
| CIP Return pump for curd tank |  |  |  |  |  |
| Sugar dissolving / syrup preparation vat |  |  |  |  |  |
| Sugar syrup transfer pump |  |  |  |  |  |
| Pasteurized water tank |  |  |  |  |  |
| PHE Chiller for cooling sugar syrup & past. water |  |  |  |  |  |
| Pasteurized water transfer pump |  |  |  |  |  |
| Sugar syrup transfer pump |  |  |  |  |  |
| Pouch Filling Machine for curd milk/butter milk /lassi |  |  |  |  |  |
| Leaky pouch collection system |  |  |  |  |  |
| Rotary curd cup filling machine indigenous |  |  |  |  |  |
| Crate washer and conveyor |  |  |  |  |  |
| Heater for incubation room |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| **CLEANING IN PLACE EQUIPMENT** |  |  |  |  |  |
| **CIP COMMON FACILITY** |  |  |  |  |  |
| Bulk Acid storage tank |  |  |  |  |  |
| Bulk Lye storage tank |  |  |  |  |  |
| Chemical unloading pump (for acid & lye) |  |  |  |  |  |
| Tanker unloading hose |  |  |  |  |  |
| Acid carbouys unloading tank |  |  |  |  |  |
| Lye flake dissolving tank with agitator |  |  |  |  |  |
| Acid Transfer pump |  |  |  |  |  |
| Lye Transfer pump |  |  |  |  |  |
| SS tray for bulk tanks and pumps |  |  |  |  |  |
|  |  |  |  |  |  |
| **PROCESS & Tanker CIP - 3 Circuits** |  |  |  |  |  |
| Lye tank |  |  |  |  |  |
| Acid Tank |  |  |  |  |  |
| Hot water tank |  |  |  |  |  |
| Recuperation tank |  |  |  |  |  |
| Flush water tank |  |  |  |  |  |
| Acid Service Tank with dosing pump |  |  |  |  |  |
| Lye Service Tank with dosing pump. |  |  |  |  |  |
| Plate Heat exchangers |  |  |  |  |  |
| Duplex Inline Filters |  |  |  |  |  |
| CIP forward pumps |  |  |  |  |  |
| Recirculation pump for acid & lye solution tanks |  |  |  |  |  |
|  |  |  |  |  |  |
| **TANKER CIP - single Circuits** |  |  |  |  |  |
| Lye tank |  |  |  |  |  |
| Acid Tank |  |  |  |  |  |
| Hot water tank |  |  |  |  |  |
| Recuperation tank |  |  |  |  |  |
| Flush water tank |  |  |  |  |  |
| Acid Service Tank with dosing pump |  |  |  |  |  |
| Lye Service Tank with dosing pump. |  |  |  |  |  |
| Plate Heat exchangers |  |  |  |  |  |
| Duplex Inline Filters |  |  |  |  |  |
| CIP forward pumps |  |  |  |  |  |
| Recirculation pump for acid & lye solution tanks |  |  |  |  |  |
|  |  |  |  |  |  |
| **CIP FOR IP BLOCK** |  |  |  |  |  |
| Lye tank |  |  |  |  |  |
| Acid Tank |  |  |  |  |  |
| Hot water tank |  |  |  |  |  |
| Recuperation tank |  |  |  |  |  |
| Flush water tank |  |  |  |  |  |
| Lye & Acid dosing system |  |  |  |  |  |
| Acid Transfer pump |  |  |  |  |  |
| Lye Transfer pump |  |  |  |  |  |
| Acid Service Tank |  |  |  |  |  |
| Lye Service Tank |  |  |  |  |  |
| Plate Heat exchangers |  |  |  |  |  |
| Duplex Filters |  |  |  |  |  |
| CIP forward pumps |  |  |  |  |  |
| CIP Return Pumps |  |  |  |  |  |
|  |  |  |  |  |  |
| **MILK PIPING AND FITTINGS** |  |  |  |  |  |
| **MILK & CIP PIPING AND FITTINGS** |  |  |  |  |  |
| SS Pipes, fittings, flow plates, SS supports, imported Mix proof & single seat valves, valve battery trays etc. |  |  |  |  |  |
|  |  |  |  |  |  |
| **INSTRUMENTATION & AUTOMATION** |  |  |  |  |  |
| **CONTROL & INSTRUMENTS, AUTOMATION** |  |  |  |  |  |
| Controls & Instrumentation |  |  |  |  |  |
| DCS Automation system with HMIs |  |  |  |
| MIS System |  |  |  |
| **TOTAL** |  |  |  |  |  |
|  |  |  |  |  |  |
| **PROCESS AND PRODUCTION CONTINGENCIES** |  |  |  |  |  |
| **PROCESS AND PRODUCTION CONTINGENCIES** |  |  |  |  |  |
| Process and Production contingencies |  |  |  |  |  |
|  |  |  |  |  |  |
| **TOTAL FOR PROCESS & PRODUCTION** |  |  |  |  |  |
|  |  |  |  |  |  |
| **SERVICE EQUIPMENT** |  |  |  |  |  |
| **REFRIGERATION SYSTEM** |  |  |  |  |  |
| **REFRIGERATION PLANT** |  |  |  |  |  |
| Refrigeration Compressor Units (1 W + 1 S) suitable for operating at -10 Deg C suction and +40 Deg C condensing Temp. |  |  |  |  |  |
| Refrigeration Compressor Units (1 W + 1 S) suitable for operating at -25 Deg C suction & -10 Deg C discharge |  |  |  |  |  |
| Motors for main Compressors |  |  |  |  |  |
| Motors for booster Compressors |  |  |  |  |  |
| VFD Starters for high stage compressor |  |  |  |  |  |
| VFD Starters for low stage compressor |  |  |  |  |  |
| Common Economizers one each for -5 Deg C & -30 Deg C compressors |  |  |  |  |  |
| Oil Loading & unloading system |  |  |  |  |  |
| Pre-Chiller working at -2 deg C Complete with liquid accumulator, Anti-freeze temperature controller, CIP arrangement - Flow rate of water 180 Cu.m/Chiller |  |  |  |  |  |
| Evaporative type condenser imported |  |  |  |  |  |
| Liquid ammonia pumps, 15 Cum/Hr for -5 deg C) |  |  |  |  |  |
| Liquid ammonia pumps1.5 Cum/Hr for -30 deg C |  |  |  |  |  |
| HP Liquid ammonia Receiver with standard fittings. |  |  |  |  |  |
| IBT System with 4000 RM coil |  |  |  |  |  |
| Refrigerant lines controls |  |  |  |  |  |
| Priority vessel |  |  |  |  |  |
| Miscellaneous items |  |  |  |  |  |
| Liquid accumulator, one each for system working at -5 deg C and - 30 deg C |  |  |  |  |  |
| Oil Cooler - refrigerant cooled type |  |  |  |  |  |
| Oil Rectifier for -2 deg C, -10 deg C & -25 deg C systems |  |  |  |  |  |
| Chilled water pumps (3W + 1S) |  |  |  |  |  |
| Defrost water supply & return pump (2W + 1S) |  |  |  |  |  |
| Automatic air purger |  |  |  |  |  |
| Motor Control Centre for Refrigeration |  |  |  |  |  |
| PLC / DCS based Plant Central Automation |  |  |  |  |  |
| Copper Power, control & instrumentation cables |  |  |  |  |  |
| Earthing materials, cable trays & electrical accessories |  |  |  |  |  |
| Local instruments on all vessels/pipelines |  |  |  |  |  |
| Ammonia Piping, valves & fittings |  |  |  |  |  |
| Condenser water Piping, valves & fittings |  |  |  |  |  |
| Defrost water, Chilled water Piping/drain, valves & fittings for process upto the outlet of the pump NRV. |  |  |  |  |  |
| Insulation of refrigerant and chilled water lines with PUF sections and cladding |  |  |  |  |  |
| Galvanised MS Structural supports for piping including supports for piping outside the building, ladder etc. |  |  |  |  |  |
| Spares |  |  |  |  |  |
| Expansion tank for chilled water |  |  |  |  |  |
| First Charge of ammonia Gas |  |  |  |  |  |
| First Charge of Compressor Oil & Lubricants |  |  |  |  |  |
|  |  |  |  |  |  |
| **COLD STORAGES/ DEEP FREEZERS INSULATION** |  |  |  |  |  |
| **USING PUF SANDWICHED PANELS & FDC UNITS** |  |  |  |  |  |
| Milk Cold Storage |  |  |  |  |  |
| Dahi blast cooler |  |  |  |
| Dahi Cold storage |  |  |  |
| Chaach/Lassi Cold Storage |  |  |  |
| Paneer Cold Storage |  |  |  |
| Butter Cold Store |  |  |  |
| Curd & Paneer Cold Store |  |  |  |
| Curd incubation room |  |  |  |
| Butter deep freeze for butter |  |  |  |
|  |  |  |  |  |  |
| **STEAM GENERATION SYSTEM** |  |  |  |  |  |
| **STEAM RAISING PLANT** |  |  |  |  |  |
| Coal/ wood/briquette fired Steam Boiler with ESP, auto blow down and Air preheating |  |  |  |  |  |
| Chimney & Ducting |  |  |  |  |  |
| Feed Water Tank insulated & Water piping |  |  |  |  |  |
| HP Steam & Condensate Pipes & Fittings IBR |  |  |  |  |  |
| Steam Pressure Reducing Station IBR |  |  |  |  |  |
| LP Steam Pipes & Fittings |  |  |  |  |  |
| Condensate collection and pumping system |  |  |  |  |  |
| Insulation of Steam Piping |  |  |  |  |  |
|  |  |  |  |  |  |
| **SOLAR WATER HEATING SYSTEM** |  |  |  |  |  |
| CST for generating hot water at 80 deg C |  |  |  |  |  |
|  |  |  |  |  |  |
| **WATER HANDLING SYSTEM** |  |  |  |  |  |
| **WATER SYSTEM** |  |  |  |  |  |
| Automatic duplex filtration plant |  |  |  |  |  |
| Raw filtered water hydroflow system with vertical pumps ( 1W + 1S) |  |  |  |  |  |
| Automatic duplex water softening plant |  |  |  |  |  |
| Soft water hydroflow system with vertical pumps (1W + 1S) |  |  |  |  |  |
| Automatic DM or RO water plant |  |  |  |  |  |
| DM or RO water buffer SS storage tank |  |  |  |  |  |
| RO water pumps (1W + 1S) |  |  |  |  |  |
| Water pipes, valves & fittings |  |  |  |  |  |
|  |  |  |  |  |  |
| **COMPRESSED AIR HANDLING SYSTEM** |  |  |  |  |  |
| **AIR HANDLING SYSTEM** |  |  |  |  |  |
| VFD driven non-lubricating screw air compressor in acoustic enclosure & with after cooler & moisture separator (1 W + 1S) |  |  |  |  |  |
| SS Air Receiver with accessories |  |  |  |  |  |
| Air Dryer refrigerated type |  |  |  |  |  |
| Compressed air pipes & fittings |  |  |  |  |  |
|  |  |  |  |  |  |
| **STRUCTURAL BRIDGES/PLATFORMS** |  |  |  |  |  |
| SS structural platforms in tanker ways/CIP tanks/ghee equipment/silos spiral ladders, pouch filling machines, cross over bridge for crate conveyors etc. |  |  |  |  |  |
|  |  |  |  |  |  |
| **INDUSTRIAL ELECTRICAL HT** |  |  |  |  |  |
| **INDUSTRIAL ELECTRICAL HT** |  |  |  |  |  |
| 2 panel 11 KV HT VCB and Protection system |  |  |  |  |  |
| HT Cable, 11 KV, XLPE |  |  |  |  |  |
| Two pole structure with accessories |  |  |  |  |  |
| OLTC Transformer 11 KV/415V with RTCC Panel |  |  |  |  |  |
|  |  |  |  |  |  |
| **INDUSTRIAL ELECTRICAL LT** |  |  |  |  |  |
| **INDUSTRIAL ELECTRICAL LT** |  |  |  |  |  |
| LT Bus duct |  |  |  |  |  |
| Power control centre ( PCC ) |  |  |  |  |  |
| MCC's for LMP, Ghee, Curd, UHT and boilers |  |  |  |  |  |
| Power & control cables |  |  |  |  |  |
| Instrumentation cables |  |  |  |  |  |
| RCPs, Frequency drive panel |  |  |  |  |  |
| Earthing (Power & instruments/automation) |  |  |  |  |  |
| Capacitor Panels with APFCR & Capacitors |  |  |  |  |  |
| DG Set with AMF Panel |  |  |  |  |  |
| Miscellaneous items |  |  |  |  |  |
| - GI & SS cable trays |  |  |  |  |  |
| - Isolators (with Emergency push buttons) |  |  |  |
| - Rubber Mats |  |  |  |
| - SS Conduits |  |  |  |
|  |  |  |  |  |  |
| **TOTAL SERVICE EQUIPMENT** |  |  |  |  |  |
|  |  |  |  |  |  |
| **SERVICE EQUIPMENT CONTINGENCIES** |  |  |  |  |  |
| **SERVICE EQUIPMENT CONTINGENCIES** |  |  |  |  |  |
| Service equipment contingencies |  |  |  |  |  |
|  |  |  |  |  |  |
| **TOTAL FOR SERVICE EQUIPMENT** |  |  |  |  |  |
|  |  |  |  |  |  |
| **MISCELLANEOUS EQUIPMENT** |  |  |  |  |  |
| **LABORATORY EQUIPMENT** |  |  |  |  |  |
| **LABORATORY EQUIPMENT** |  |  |  |  |  |
| Gerber Test Equipment |  |  |  |  |  |
| MBR Test kit |  |  |  |  |  |
| Sediment Analyser |  |  |  |  |  |
| Phosphatase Test kit |  |  |  |  |  |
| Raw milk density meter |  |  |  |  |  |
| Acidometer |  |  |  |  |  |
| Sampling Kit |  |  |  |  |  |
| Plate count test kit |  |  |  |  |  |
| Swab test kit |  |  |  |  |  |
| Advance range electronic pH meter |  |  |  |  |  |
| Chlorine Sanitiser strength analyser |  |  |  |  |  |
| Majonnier Fat tester |  |  |  |  |  |
| Water examination test kit |  |  |  |  |  |
| Infra red milk analyser |  |  |  |  |  |
| Electric autoclave |  |  |  |  |  |
| Polarimeter |  |  |  |  |  |
| Microscope |  |  |  |  |  |
| Magnetic stirrer |  |  |  |  |  |
| Causticity / acidity test equipment |  |  |  |  |  |
| Coliform bacteria test equipment |  |  |  |  |  |
| Colony counter |  |  |  |  |  |
| High precision weighing balance |  |  |  |  |  |
| Heavy duty hot air oven |  |  |  |  |  |
| Incubator |  |  |  |  |  |
| Distilled water unit |  |  |  |  |  |
| Antibiotics test kit |  |  |  |  |  |
| Anaerobic count analysis equipment |  |  |  |  |  |
| Microwave oven |  |  |  |  |  |
| Laboratory, equipment, glassware, chemicals |  |  |  |  |  |
|  |  |  |  |  |  |
| **WORKSHOP MACHINES** |  |  |  |  |  |
| **WORKSHOP EQUIPMENT AND TOOLS** |  |  |  |  |  |
| Workshop tools & equipment |  |  |  |  |  |
|  |  |  |  |  |  |
| **FIRE FIGHTING SYSTEM** |  |  |  |  |  |
| **FIRE FIGHTING SYSTEM** |  |  |  |  |  |
| Fire extinguishers for LMP, control room, office, Workers' amenities, production building, butter cold store & deep freeze, ghee store, general store & lignite/coal/wood/ briquette storage area |  |  |  |  |  |
|  |  |  |  |  |  |
| **WEIGHING EQUIPMENT** |  |  |  |  |  |
| **WEIGHING EQUIPMENT** |  |  |  |  |  |
| Elec. Weigh bridge |  |  |  |  |  |
| Elec. Weigh scale in central store |  |  |  |  |  |
|  |  |  |  |  |  |
| **COMMUNICATION EQUIPMWNT** |  |  |  |  |  |
| **EPABX AND TELEPHONE** |  |  |  |  |  |
| EPABX and telephone system |  |  |  |  |  |
|  |  |  |  |  |  |
| **SPARE PARTS** |  |  |  |  |  |
| **SPARE PARTS** |  |  |  |  |  |
| Spares |  |  |  |  |  |
|  |  |  |  |  |  |
| **MISCELLANEOUS ITEMS** |  |  |  |  |  |
| Steam & Water Mixing batteries |  |  |  |  |  |
| Misc items |  |  |  |  |  |
|  |  |  |  |  |  |
| **TOTAL** |  |  |  |  |  |
|  |  |  |  |  |  |
| **MISCELLANEOUS EQUIPMENT CONTINGENCIES** |  |  |  |  |  |
| **MISCELLANEOUS EQUIPMENT CONTINGENCIES** |  |  |  |  |  |
| Miscellaneous equipment contingencies |  |  |  |  |  |
|  |  |  |  |  |  |
| **TOTAL FOR MISC EQUIPMENT** |  |  |  |  |  |
|  |  |  |  |  |  |
| **ERECTION** |  |  |  |  |  |
|  |  |  |  |  |  |
| **ERECTION** |  |  |  |  |  |
| **ERECTION, TESTING AND COMMISSIONING** |  |  |  |  |  |
| Erection of LMP, utilities, Misc. items + Misc. like insurance/water charges/ Electricity etc. |  |  |  |  |  |
|  |  |  |  |  |  |
| **TOTAL** |  |  |  |  |  |
|  |  |  |  |  |  |
| **ERECTION CONTINGENCIES** |  |  |  |  |  |
| **ERECTION CONTINGENCIES** |  |  |  |  |  |
| Erection contingencies |  |  |  |  |  |
|  |  |  |  |  |  |
| **TOTAL FOR ERECTION OF EQUIPMENT** |  |  |  |  |  |

1. (Similar format to be used for Cattle feed, By-pass protein and Mineral Mixture plant)

Annex VIII: Marketing and sales plan for milk & milk products over next 3 years

Table 1.A: Breakup of Projected Liquid Milk (LM) Sales

| **Particulars** | **Unit** | **Base Yr.** | **Yr-1** | **Yr-2** | **Yr-3** | **Yr-4** | **Yr-5** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Urban Population** | Lakh |  |  |  |  |  |  |
| **Per capita Consumption** | Gms/ day |  |  |  |  |  |  |
| **Liquid Milk Demand Potential** | TLPD |  |  |  |  |  |  |
| **Total Milk sales by the PI** | TLPD |  |  |  |  |  |  |
| **LM Sales through retailers** | TLPD |  |  |  |  |  |  |
| Full Cream Milk | TLPD |  |  |  |  |  |  |
| 5000 ml | TLPD |  |  |  |  |  |  |
| 1000 ml | TLPD |  |  |  |  |  |  |
| 500 ml | TLPD |  |  |  |  |  |  |
| 200 ml | TLPD |  |  |  |  |  |  |
| Standard Milk | TLPD |  |  |  |  |  |  |
| 5000 ml | TLPD |  |  |  |  |  |  |
| 1000 ml | TLPD |  |  |  |  |  |  |
| 500 ml | TLPD |  |  |  |  |  |  |
| 200 ml | TLPD |  |  |  |  |  |  |
| Toned Milk | TLPD |  |  |  |  |  |  |
| 5000 ml | TLPD |  |  |  |  |  |  |
| 1000 ml | TLPD |  |  |  |  |  |  |
| 500 ml | TLPD |  |  |  |  |  |  |
| 200 ml | TLPD |  |  |  |  |  |  |
| Double Toned Milk | TLPD |  |  |  |  |  |  |
| 5000 ml | TLPD |  |  |  |  |  |  |
| 1000 ml | TLPD |  |  |  |  |  |  |
| 500 ml | TLPD |  |  |  |  |  |  |
| 200 ml | TLPD |  |  |  |  |  |  |
| Any other Variant | TLPD |  |  |  |  |  |  |
| 5000 ml | TLPD |  |  |  |  |  |  |
| 1000 ml | TLPD |  |  |  |  |  |  |
| 500 ml | TLPD |  |  |  |  |  |  |
| 200 ml | TLPD |  |  |  |  |  |  |
| **Breakup of Institutions LM Sales** | TLPD |  |  |  |  |  |  |
| Hotels | TLPD |  |  |  |  |  |  |
| 5000 ml | TLPD |  |  |  |  |  |  |
| 1000 ml | TLPD |  |  |  |  |  |  |
| Restaurants | TLPD |  |  |  |  |  |  |
| 5000 ml | TLPD |  |  |  |  |  |  |
| 1000 ml | TLPD |  |  |  |  |  |  |
| Caterers | TLPD |  |  |  |  |  |  |
| 5000 ml | TLPD |  |  |  |  |  |  |
| 1000 ml | TLPD |  |  |  |  |  |  |
| Tea stall | TLPD |  |  |  |  |  |  |
| 5000 ml | TLPD |  |  |  |  |  |  |
| 1000 ml | TLPD |  |  |  |  |  |  |
| 500 ml | TLPD |  |  |  |  |  |  |
| Others | TLPD |  |  |  |  |  |  |
| **PI’s LM market share** | % |  |  |  |  |  |  |
| **Liquid milk marketing as % of procurement** |  |  |  |  |  |  |  |

Table 1.B: Breakup of Projected Value Added Products (VAP) Sales

| **Breakup of Products Sales** | **Unit** | **Base Yr.** | **Yr -1** | **Yr -2** | **Yr-3** | **Yr-4** | **Yr-5** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Total Products to be sold by PI** | Nos |  |  |  |  |  |  |
| Product 1 | TLPD/ MTPD |  |  |  |  |  |  |
| Product 2 |  |  |  |  |  |  |
| Product 3 etc |  |  |  |  |  |  |
| New Product launch 1 |  |  |  |  |  |  |
| New Product launch 2 |  |  |  |  |  |  |
| New Product launch 3 etc |  |  |  |  |  |  |
| **Products to be sold through Retailers & Parlours** |  |  |  |  |  |  |  |
| Product 1 | TLPD/ MTPD |  |  |  |  |  |  |
| Product 2 |  |  |  |  |  |  |
| Product 3 etc |  |  |  |  |  |  |
| New Product -1 |  |  |  |  |  |  |
| New Product -2 |  |  |  |  |  |  |
| New Product -3 etc |  |  |  |  |  |  |
| **Products to be sold through Institutions** |  |  |  |  |  |  |  |
| Product 1 | TLPD/ MTPD |  |  |  |  |  |  |
| Product 2 |  |  |  |  |  |  |
| Product 3 etc |  |  |  |  |  |  |
| New Product -1 |  |  |  |  |  |  |
| New Product -2 |  |  |  |  |  |  |
| New Product -3 etc |  |  |  |  |  |  |

Table 1.C: Distribution & retail network

| **Particulars** | | **Unit** | **Base Yr.** | **Yr -1** | **Yr -2** | **Yr-3** | **Yr-4** | **Yr-5** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Distribution network** | |  |  |  |  |  |  |  |
| Distributors | | Nos |  |  |  |  |  |  |
| Distributor Routes | | Nos |  |  |  |  |  |  |
| Vehicles used for milk distribution | | Nos |  |  |  |  |  |  |
| Insulated vehicle | Own Vehicle | Nos |  |  |  |  |  |  |
| Hired vehicle | Nos |  |  |  |  |  |  |
| Vehicle without insulation | Own Vehicle | Nos |  |  |  |  |  |  |
| Hired vehicle | Nos |  |  |  |  |  |  |
| **Retailers** | | Nos |  |  |  |  |  |  |
| Total Retailers | | Nos |  |  |  |  |  |  |
| Retailers with visi cooler | | Nos |  |  |  |  |  |  |
| Milk Parlours/ Booths | | Nos |  |  |  |  |  |  |
| Milk Parlours/booths with Visi cooler | | Nos |  |  |  |  |  |  |
| **Institutional Buyers** | | Nos |  |  |  |  |  |  |
| Hotels | | Nos |  |  |  |  |  |  |
| Restaurants | | Nos |  |  |  |  |  |  |
| Caterers | | Nos |  |  |  |  |  |  |
| Tea stall | | Nos |  |  |  |  |  |  |
| Other Institutions | | Nos |  |  |  |  |  |  |

Table 2: Advertisement & Sales Promotional activities undertaken by PI

| **Particulars** | **Unit** | **Base Yr.** | **Yr -1** | **Yr -2** | **Yr-3** | **Yr-4** | **Yr-5** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Outdoor Media** |  |  |  |  |  |  |  |
| Hoardings | Nos |  |  |  |  |  |  |
| Ad-poles |  |  |  |  |  |  |  |
| Sign boards | Nos |  |  |  |  |  |  |
| Banners – Vinyl | Nos |  |  |  |  |  |  |
| Danglers | Nos |  |  |  |  |  |  |
| Buntings | Nos |  |  |  |  |  |  |
| Glow sign Boards | Nos |  |  |  |  |  |  |
| Wall paintings | ft² |  |  |  |  |  |  |
| Vehicle Paintings/Vinyl Pasting | ft² |  |  |  |  |  |  |
| Parlour Paintings/Vinyl Pasting | ft² |  |  |  |  |  |  |
| Retail shop Painting | ft² |  |  |  |  |  |  |
| Ads on Bus Shelter | ft² |  |  |  |  |  |  |
| **Print Media** |  |  |  |  |  |  |  |
| Newspaper Ads | Nos |  |  |  |  |  |  |
| Newspaper insertions | Nos |  |  |  |  |  |  |
| Pamphlets | Nos |  |  |  |  |  |  |
| Stickers | Nos |  |  |  |  |  |  |
| Brochures | Nos |  |  |  |  |  |  |
| Others |  |  |  |  |  |  |  |
| **Electronic Media** |  |  |  |  |  |  |  |
| Radio Jingles | Nos |  |  |  |  |  |  |
| Ads in Cable TV Network | Nos |  |  |  |  |  |  |
| Ads in Cinema Theatres | Nos |  |  |  |  |  |  |
| Others |  |  |  |  |  |  |  |
| **Social Awareness Campaign** |  |  |  |  |  |  |  |
| Sponsoring Social Awareness Campaigns | Nos |  |  |  |  |  |  |
| Sponsoring school events and programmes | Nos |  |  |  |  |  |  |
| Organising Programmes and events *(Eg. Cooking competition, Most Progressive Retailers & Distributors, etc.)* | Nos |  |  |  |  |  |  |
| School Student visit to Dairy | Nos |  |  |  |  |  |  |
| Others | Nos |  |  |  |  |  |  |
| **Social Media** |  |  |  |  |  |  |  |
| Advertisement through Social Media sites | Nos |  |  |  |  |  |  |

Annex IX: List of villages to be covered for Productivity Enhancement Activities

1. **Calf Rearing Programme (CRP)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **District name** | **Taluka Name** | **Village Name** | **Census Code**  (as per Human Census 2011) | **Name of DCS** | **Existing Milk procurement (TKgPD)** | **Milch animals (Nos.)** | **Heifers (Nos.)** |
| 1 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |

1. **Animal Nutrition Advisory Services**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **District name** | **Taluka Name** | **Village Name** | **Census Code**  (as per Human Census 2011) | **Name of DCS** | **Existing Milk procurement (TKgPD)** | **Milch animals (Nos.)** | **Heifers (Nos.)** |
| 1 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |

1. **Fodder Development**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **District name** | **Taluka Name** | **Village Name** | **Census Code**  (as per Human Census 2011) | **Name of DCS** | **Existing Milk procurement (TKgPD)** |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |

Annex X: The schedule of implementation of activities under the project

**Component A: Strengthening Milk Procurement Activities**

| **No.** | **Activity** | **Total time taken to complete the activity (in days)** | **Year 1** | | | | | | | | **Year 2** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Month 1** | | | | **Month 2** | | | | **Month 1** | | | | **Month 2** | | | |
| **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** |
| **1** | **Identification and recruitment of manpower** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Identification of manpower of PI for the project activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Identification/ Recruitment of DCS secretary |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Identification of DCS Management Committee |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2** | **Purchase of Goods** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Capital Items |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Stock record of goods |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3** | **Identification of villages** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Organisation of Gram Sabha |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Registration of society |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Construction of building for DCS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Installation of EMAT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Installation of AMCU/DPMCU |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4** | **Installation of BMC** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Identification of location for building/ existing building |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Construction of building for BMC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Installation of BMC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5** | **Training & Capacity Building** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Training of PI employees |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Training of DCS secretaries |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6** | **Initiation of milk procurement** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Note: This rollout plan is for the activities (identifying villages for DCS organisation/strengthening, installing AMCU/DPMCU/BMC) envisaged in the 1st year. Similar process would be followed in subsequent years.

**Component B: Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed)**

| **No.** | **Activity** | **Total time taken to complete the activity (in days)** | **Year 1** | | | | | | | | | | | | **Year 2** | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **M1** | **M2** | **M3** | **M4** | **M5** | **M6** | **M7** | **M8** | **M9** | **M10** | **M11** | **M12** | **M1** | **M2** | **M3** | **M4** |
| 1. | Preliminary activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. | Execution of Civil work |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3. | Processing Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4. | Refrigeration Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5. | Steam Generation Plant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6. | Industrial Electricals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7. | ETP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8. | Project completion & handing over |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Component C: Support for Marketing Infrastructure**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Activity** | **Total time taken to complete the activity (in days)** | **Year 1** | | | | | | | | **Year 2** | | | | | | | |
| **Month 1** | | | | **Month 2** | | | | **Month 1** | | | | **Month 2** | | | |
| **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** |
| **1** | **Identification and recruitment of manpower** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Identification of manpower of PI for the project activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2** | **Purchase of Goods** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Capital Items |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Stock record of goods |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3** | **Identification of location for milk booth** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Paperwork and getting necessary clearances |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Installation of Deep freezer/ Vizi cooler |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Establishment of walk-in-cold storage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4** | **Awareness programmes & Market studies** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Awareness programmes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Market studies |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5** | **Training & Capacity Building** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Training of PI employees |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Note: This rollout plan is for the activities envisaged in the 1st year. Similar process would be followed in subsequent years.

**Component D: Support for ICT Infrastructure**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Activity** | **Total time taken to complete the activity (in days)** | **Year 1** | | | | | | | | **Year 2** | | | | | | | |
| **Month 1** | | | | **Month 2** | | | | **Month 1** | | | | **Month 2** | | | |
| **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** |
| **1** | **Identification and recruitment of manpower** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Identification of manpower of PI for the project activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2** | **Purchase of Goods** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Capital Items |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Stock record of goods |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3** | **Pilot run** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5** | **Training & Capacity Building** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Training of PI employees |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Component E: Productivity Enhancement**

| **No.** | **Activity** | **Total time taken to complete the activity (in days)** | **Year 1** | | | | | | | | **Year 2** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Month 1** | | | | **Month 2** | | | | **Month 1** | | | | **Month 2** | | | |
| **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** | **W 1** | **W 2** | **W 3** | **W 4** |
| **1** | **Identification and recruitment of manpower** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Identification of ANO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Identification of CRP/AN supervisors |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2** | **Purchase of Goods** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Capital Items |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Stock record of goods |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3** | **Identification of villages & animals** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Finalisation of villages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Identification of farmers willing to participate under CRP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Identification of pregnant animals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4** | **Registration of animals** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ear tagging & Registration of pregnant animals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Follow-up of pregnant animals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Ear tagging & Registration of female calves |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5** | **CRP activities** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Deworming of female calves |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Vaccination of female calves |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Assistance for pregnancy feed |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Assistance for calf starter |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Assistance for calf growth meal |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Assistance for transition feed |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5** | **An Advisory Services** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Assistance for mineral mixture |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Assistance for transition feed & early lactation feed |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6** | **FD activities** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Silage making |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Demo for Mower |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Other activities … |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **7** | **Training & Capacity Building** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Training to ANO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Training to CRP/AN Supervisor |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **8** | **Project Monitoring and support** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Salary to ANO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Salary to CRP/AN Supervisor |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Office expenses for ANO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Note: This is an indicative rollout plan for the activities envisaged in the 1st year. Similar process would be followed in subsequent years.

Annex XI: Organogram of the PI

**Board of Directors**

**(Chairman)**

Section Head (Finance & accounts)

Section Head (Engineering)

Section Head (Admin)

Section Head Production

Section Head (QC)

Section Head (Purchase)

Section Head (Marketing)

Section Head (P&I)

Section Head (System)

**Managing Director**

**Annex XII: Procurement Plan & Procurement Schedule and PI’s approved Procurement Policy**

1. **Procurement Plan**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Item** | **No.** | **Unit Rate (Rs.)** | **Total estimated cost (Rs in lakhs)** | **Method of procurement** | **Review** |
| 1 | Milk Collection accessories |  |  |  |  |  |
| 2 | Milk cans |  |  |  |  |  |
| 3 | ICT support of milk procurement |  |  |  |  |  |
|  | **Total** |  |  |  |  |  |

**B. Procurement Schedule**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Item** | **Quantity (nos.)** | **Total estimate cost (Rs in Lakh)** | **Method of procurement** | **Issuance of IFB** | **Receipt and opening of bids** | **Evaluation of bids and approval of competent Authority** | **Issuance of Purchase Order** | **Start of supply** | **Completion of supply** |
| 1 | Milk Collection accessories |  |  |  |  |  |  |  |  |  |
| 2 | Milk cans |  |  |  |  |  |  |  |  |  |
| 3 | ICT support of milk procurement |  |  |  |  |  |  |  |  |  |
|  | **Total** |  |  |  |  |  |  |  |  |  |

**C. Detailed Procurement Policy and Procedure of the PI**

**Annex XIII: Environmental Checklist**

Screening Format

Name of Proposed Project:

Project Executing Organization, Project Proponent or Investment Company:

Name, Address, Organization, and Contact Point of a Responsible Officer:

Name:

Address:

Organization:

Tel:

Fax:

E-Mail:

Date:

Signature:

Check Items

Please write “to be advised (TBA)” when the details of a project are yet to be determined.

**Question 1: Address of project site**

**Question 2: Scale and contents of the project (approximate area, facilities area,** **production, electricity generated, etc.)**

2-1. Project profile (scale and contents)

2-2. How was the necessity of the project confirmed?

Is the project consistent with the higher program/policy?

□YES: Please describe the higher program/policy.

（ ）

□NO

2-3. Did the proponent consider alternatives before this request?

□YES: Please describe outline of the alternatives （ ）

□NO

2-4. Did the proponent implement meetings with the related stakeholders before this

request?

□Implemented □Not implemented

If implemented, please mark the following stakeholders.  
□Administrative body  
□Local residents  
□NGO  
□Others（ ）

**Question 3:**

Is the project a new one or an ongoing one? In the case of an ongoing project, have you received strong complaints or other comments from local residents?

☐New ☐Ongoing (with complaints) ☐Ongoing (without complaints)

☐Other

**Question 4:**

Is an Environmental Impact Assessment (EIA), including an Initial Environmental Examination (IEE) Is, required for the project according to a law or guidelines of a host country? If yes, is EIA implemented or planned? If necessary, please fill in the reason why EIA is required.

☐Necessity (□Implemented □Ongoing/planning)

(Reason why EIA is required: )

☐Not necessary

☐Other (please explain)

**Question 5:**

In the case that steps were taken for an EIA, was the EIA approved by the relevant laws of the host country? If yes, please note the date of approval and the competent authority.

|  |  |  |
| --- | --- | --- |
| ☐Approved without a supplementary condition | ☐Approved with a supplementary condition | ☐Under appraisal |

(Date of approval: Competent authority: )

☐Under implementation

☐Appraisal process not yet started

☐Other ( )

**Question 6:**

If the project requires a certificate regarding the environment and society other than an EIA, please indicate the title of said certificate. Was it approved?

☐Already certified

Title of the certificate: ( )

☐Requires a certificate but not yet approved

☐Not required

☐Other

**Question 7:**

Are any of the following areas present either inside or surrounding the project site?

☐Yes ☐No

If yes, please mark the corresponding items.

☐National parks, protection areas designated by the government (coastline, wetlands, reserved area for ethnic or indigenous people, cultural heritage)

☐Primeval forests, tropical natural forests

☐Ecologically important habitats (coral reefs, mangrove wetlands, tidal flats, etc.)

☐Habitats of endangered species for which protection is required under local laws and/or international treaties

☐Areas that run the risk of a large scale increase in soil salinity or soil erosion

☐Remarkable desertification areas

☐Areas with special values from an archaeological, historical, and/or cultural points of view

☐Habitats of minorities, indigenous people, or nomadic people with a traditional lifestyle, or areas with special social value

**Question 8:**

Does the project include any of the following items?

☐Yes ☐No

If yes, please mark the appropriate items.

☐Involuntary resettlement (scale: households persons)

☐Groundwater pumping (scale: m3/year)

☐Land reclamation, land development, and/or land-clearing (scale: hectors)

☐Logging (scale: hectors)

**Question 9:**

Please mark related adverse environmental and social impacts, and describe their outlines.

☐Air pollution

☐Water pollution

☐Soil pollution

☐Waste

☐Noise and vibrations

☐Ground subsidence

☐Offensive odors

☐Geographical features

☐Bottom sediment

☐Biota and ecosystems

☐Water usage

☐Accidents

☐Global warming

☐Involuntary resettlement

☐Local economies, such as employment, livelihood, etc.

☐Land use and utilization of local resources

☐Social institutions such as social infrastructure and local decision-making institutions

☐Existing social infrastructures and services

☐Poor, indigenous, or ethnic people

☐Misdistribution of benefits and damages

☐Local conflicts of interest

☐Gender

☐Children’s rights

☐Cultural heritage

☐Infectious diseases such as HIV/AIDS

☐Other ( )

Outline of related impact:

**Question 10:**

In the case of a loan project such as a two-step loan or a sector loan, can sub-projects be specified at the present time?

☐Yes ☐No

**Question 11:**

Regarding information disclosure and meetings with stakeholders, if JICA’s environmental and social considerations are required, does the proponent agree to information disclosure and meetings with stakeholders through these guidelines?

☐Yes ☐No

**Annex XIV: Board resolution (sample)**

The Board of Directors of XYZ PI in its meeting held on *\_\_\_\_\_(date)\_\_\_\_\_* vide Resolution No.123 has adopted the following resolution:-

**Resolution No. 123**

“RESOLVED that the approval of the Board be and is hereby accorded to the PI for receiving assistance under ‘Dairying Through Cooperatives (DTC) scheme.”

“FURTHER RESOLVED THAT the PI intends toestablish \_\_\_\_ new DCS, \_\_\_\_ BMCs and \_\_\_\_ AMCU, \_\_\_ LLPD dairy plant, \_\_\_ walk-in-cold storage. The PI also intends to implement Productivity Enhancement Activities through implementation of Calf Rearing Programme, Animal Nutrition Advisory Services and Fodder Development activities in \_\_\_\_\_ villages.”

“FURTHER RESOLVED THAT out of total project cost of about Rs. \_\_\_\_ Lakh, the PI intends to avail Rs. \_\_\_\_\_\_ Lakh as grant, Rs. \_\_\_\_ Lakh as loan under the above scheme and is ready to contribute the balance amount of Rs. \_\_\_ Lakh from its own sources.”

“FURTHER RESOLVED THAT, the PI hereby assures that it would continue to implement all the activities under the project on a sustainable basis.”

“FURTHER RESOLVED THAT, the PI hereby ensures that there is no duplication or overlap of the proposed activity(s) with the existing schemes of the Central and State Government departments in the operational area of the PI.

“FURTHER RESOLVED THAT Managing Director of the PI be and is hereby authorised to execute all documents including the Loan Agreement with National Dairy Development Board (NDDB), on behalf of the PI and carry out any other relevant action that may be necessary for the appraisal and successful implementation of the project after its approval.”

*Signature*

*Designation*

*Seal*

**Annex XV: Component wise cost table**

**Component A - Strengthening Milk Procurement infrastructure**

| **No.** | **Particulars** | **Physical Targets** | | | | | | | **Unit Cost** (Rs. in Lakh) | **Financial Outlays** (Rs. in Lakh) | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Unit** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** |
|  | **Key Parameters/Physical Targets** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | New Villages to be covered | Nos. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Villages to be covered for strengthening | Nos. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Total villages to be covered | Nos. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Milk producer members to be enrolled | Nos. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Women producer members enrolled @ 50% | Nos. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Additional milk procurement (incremental) | TKgPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Additional milk procurement (cumulative) | TKgPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Participating Institutions | Nos. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A** | **Assistance to Village level Producers' Institution** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A1 | Building for Village Producer Institution | Nos. |  |  |  |  |  |  | 5.00 |  |  |  |  |  |  |
| A2 | SS milk collection Accessories, testing equipment, DCS board, furniture etc. | Nos. |  |  |  |  |  |  | 1.00 |  |  |  |  |  |  |
| A3 | AMCU - Capital Cost & operating cost | Nos. |  |  |  |  |  |  | 1.75 |  |  |  |  |  |  |
| A4 | Management grant to Village level functionary  *(tapering over 2 years - 100%, 50%)* | Nos. |  |  |  |  |  |  | 0.36 |  |  |  |  |  |  |
|  | **Sub Total (A)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **B** | **Support for BMCs** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B1 | Building for Bulk Cooler | Nos. |  |  |  |  |  |  | 3.00 |  |  |  |  |  |  |
| B2 | Bulk Milk Coolers(2KL) | Nos. |  |  |  |  |  |  | 8.00 |  |  |  |  |  |  |
| B3 | Tankers for milk transportation 10KL | Nos. |  |  |  |  |  |  | 15.00 |  |  |  |  |  |  |
|  | **Sub Total (B)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay (A+B) without Price Contingency** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Price Contingency @ 6%** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay with Price Contingency** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Pattern of Assistance** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A** | **JICA ODA Loan** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **B** | **Grant** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **C** | **PIs Contribution** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Component B - Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed)**

| **No.** | **Particulars** | **Physical Targets** | | | | | | | **Unit Cost** (Rs. in Lakh) | **Financial Outlays** (Rs. in Lakh) | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Unit** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** |
| **A** | **Modernisation & creation of new - milk processing plant, drying plant & VAP** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A1** | **New Plants** | **TLPD** |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | -100 TLPD Plant | Nos. |  |  |  |  |  |  | 3800.00 |  |  |  |  |  |  |
|  | -300 TLPD Plant | Nos. |  |  |  |  |  |  | 9000.00 |  |  |  |  |  |  |
| **A2** | **Modernisation/expansion of existing plant** | **TLPD** |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - 0.40 to 1 LLPD | Nos. |  |  |  |  |  |  | 3000.00 |  |  |  |  |  |  |
|  | - 0.60 to 1.00 LLPD | Nos. |  |  |  |  |  |  | 3500.00 |  |  |  |  |  |  |
|  | - 1 to 2 LLPD | Nos. |  |  |  |  |  |  | 4000.00 |  |  |  |  |  |  |
| **A3** | **Product Plants** | **MTPD/ TLPD** |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - Drying Capacity | MTPD |  |  |  |  |  |  | 150.00 |  |  |  |  |  |  |
|  | - Ice Cream Plant | TLPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - Aseptic Flavoured Milk | TLPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - Indigenous Sweets | MTPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - Dahi, Youghurt or Fermented Milk | MTPD |  |  |  |  |  |  | 25.00 |  |  |  |  |  |  |
|  | - Cheese or Paneer | MTPD |  |  |  |  |  |  | 25.00 |  |  |  |  |  |  |
| **B** | **Feed & Feed Manufacturing Plant** | MTPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - Cattle Feed Plant - 150 TLPD | Nos. |  |  |  |  |  |  | 4000.00 |  |  |  |  |  |  |
|  | - Bypass Protein Plant - 50 MTPD |  |  |  |  |  |  | 800.00 |  |  |  |  |  |  |
|  | - Mineral Mixture Plant - 12 MTPD |  |  |  |  |  |  | 40.00 |  |  |  |  |  |  |
|  | **Total Outlay without Price Contingency** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Price Contingency @ 6%** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay with Price Contingency** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Pattern of Assistance** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A** | **JICA ODA Loan** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *- Milk processing facilities and manufacturing facilities for Value Added Products* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *- Feed & feed supplements manufacturing infrastructure* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **B** | **Grant** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **C** | **PIs Contribution** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *- Milk processing facilities and manufacturing facilities for Value Added Products* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | *- Feed & feed supplements manufacturing infrastructure* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Component C – Support for Marketing Infrastructure**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Particulars** | **Physical Targets** | | | | | | | **Unit Cost** (Rs. in Lakh) | **Financial Outlays** (Rs. in Lakh) | | | | | |
| **Unit** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** |
| **A** | **Cold Chain Infrastructure:** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - Walk-in-Cold Store - 50 KL Capacity | Nos. |  |  |  |  |  |  | 5.00 |  |  |  |  |  |  |
|  | - Walk-in-Cold Store - 25 KL Capacity | Nos. |  |  |  |  |  |  | 2.50 |  |  |  |  |  |  |
|  | - Walk-in-Cold Store - 10 KL Capacity | Nos. |  |  |  |  |  |  | 1.00 |  |  |  |  |  |  |
| **B** | **Insulation for Marketing Vans 5KL Capacity** | Nos. |  |  |  |  |  |  | 2.00 |  |  |  |  |  |  |
| **C** | **Milk Parlours with Visi Cooler and Deep Freezer** | Nos. |  |  |  |  |  |  | 3.00 |  |  |  |  |  |  |
| **D** | **Consumer awareness Programme** | Nos. |  |  |  |  |  |  | 0.25 |  |  |  |  |  |  |
| **E** | **Market Studies** | Nos. |  |  |  |  |  |  | 10.00 |  |  |  |  |  |  |
| F | Market Promotion Cost on tapering *(tapering over 3 years - 100%, 75%, 50%)* |  |  |  |  |  |  |  | LS |  |  |  |  |  |  |
|  | **Total Outlay without Price Contingency** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Price Contingency @ 6%** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay with Price Contingency** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Pattern of Assistance** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A** | **JICA ODA Loan** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **B** | **Grant** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **C** | **PIs Contribution** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Component D – Support for ICT Infrastructure**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Particulars** | **Physical Targets** | | | | | | | **Unit Cost** (Rs. in Lakh) | **Financial Outlays** (Rs. in Lakh) | | | | | |
| **Unit** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** |
|  | Number of DCS/MPIs to be covered | Nos. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A** | **Capital Cost** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A1** | Internet Dongle at DCS/MPI level | Nos. |  |  |  |  |  |  | 0.03 |  |  |  |  |  |  |
| **B** | **Operational Cost** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **B1** | **At DCS/MPI Level** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Internet charge for 3 years | Nos. |  |  |  |  |  |  | 0.15 |  |  |  |  |  |  |
| **B2** | **At PI Level** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Internet charge for 3 years | Nos. |  |  |  |  |  |  | 0.54 |  |  |  |  |  |  |
|  | Software implementation support to DCS/MPI for 3 years | Nos. |  |  |  |  |  |  | 0.05 |  |  |  |  |  |  |
|  | AMC for AMCS software for 3 years | Nos. |  |  |  |  |  |  | 1.80 |  |  |  |  |  |  |
|  | Server hosting support for 3 years | Nos. |  |  |  |  |  |  | 7.20 |  |  |  |  |  |  |
|  | SMS charges for 3 years *(note a)* | Nos. |  |  |  |  |  |  | 0.16 |  |  |  |  |  |  |
|  | **Total Outlay without Price Contingency** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Price Contingency @ 6%** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay with Price Contingency** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Pattern of Assistance** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A** | **JICA ODA Loan** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **B** | **Grant** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **C** | **PI’s Contribution** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Component E - Productivity Enhancement**

| **No.** | **Particulars** | **Unit** | **Physical Targets** | | | | | | **Unit Cost** (Rs. in Lakh) | **Financial Outlay (Rs. in Lakh)** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** |
|  | **Physical Targets** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | Animal Nutrition Officer (ANO)# | No. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | Supervisors | No. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - CRP Supervisors (5 per module(district)) | No. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - AN Advisory Services (2 per district) | No. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | Villages to be covered (inc.) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - Calf Rearing Programme | No. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - AN Advisory Services\* | No. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | Animals to be covered (inc.) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - Pregnant animals under CRP *(5 animals per village per year for 2 years)* | No. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Female calves under CRP | No. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Animals for feeding Mineral Mixture *(40 animals per village)* | No. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Animals to be covered for Transition and Early lactation feed *(10 animals per village)* | No. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Animals to be covered under Pashuposhan | No. |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Financial Outlay** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A.** | **Calf Rearing Programme** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A.1 | Assistance for Pregnancy feed *(50% assistance) (note a)* | TKg |  |  |  |  |  |  | 0.14 |  |  |  |  |  |  |
| A.2 | Assistance for Calf starter *(50% assistance) (note b)* | TKg |  |  |  |  |  |  | 0.15 |  |  |  |  |  |  |
| A.3 | Assistance for Calf growth meal *(50% assistance) (note c)* | TKg |  |  |  |  |  |  | 0.125 |  |  |  |  |  |  |
| A.4 | Assistance for Transition feed (post calving feed) for DAMs *(50% assistance) (note d)* | TKg |  |  |  |  |  |  | 0.15 |  |  |  |  |  |  |
| A.5 | Deworming for female calves & Fertility Improvement | Nos. |  |  |  |  |  |  | 0.00075 |  |  |  |  |  |  |
| A.6 | Vaccination for female calves | Nos. |  |  |  |  |  |  | 0.00070 |  |  |  |  |  |  |
| A.7 | Ear tag *(with 25% physical contingency)* |  |  |  |  |  |  |  | 0.00012 |  |  |  |  |  |  |
| A.8 | Working Kit for CRP (with 20% physical contingency) (note e) |  |  |  |  |  |  |  | 0.025 |  |  |  |  |  |  |
| A.9 | Stationery/ Data records (Booklet etc.) *(note f)* |  |  |  |  |  |  |  | 0.01 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **B.** | **Animal Nutrition Advisory Services** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B.1 | Assistance for distribution of Mineral mixture *(50% assistance)*  *(note g)* | MT |  |  |  |  |  |  | 0.40 |  |  |  |  |  |  |
| B.2 | Assistance for distribution of Transition feed and Early Lactation Feed *(50% assistance)*  *(note h)* | MT |  |  |  |  |  |  | 0.15 |  |  |  |  |  |  |
| B.3 | Ear tag *(with 25% physical contingency)* | Nos. |  |  |  |  |  |  | 0.00012 |  |  |  |  |  |  |
| B.4 | Working Kit (with 20% physical contingency) *(note i)* | Nos. |  |  |  |  |  |  | 0.025 |  |  |  |  |  |  |
| B.5 | Stationery/ Data records (Booklet etc.) *(note j)* | Nos. |  |  |  |  |  |  | 0.01 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **C.** | **Fodder Development Activities** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **C.1** | **Green Fodder Production Enhancement** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **a** | **Fodder seed Support to farmers for TL/ Certified/Hybrid fodder seeds** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Legume fodder crops (Truthfully Labelled) *(note k)* | MT |  |  |  |  |  |  | 0.30 |  |  |  |  |  |  |
|  | Legume fodder crops (Certified) *(note l)* | MT |  |  |  |  |  |  | 0.40 |  |  |  |  |  |  |
|  | Cereal fodder crops (Truthfully Labelled) | MT |  |  |  |  |  |  | 0.10 |  |  |  |  |  |  |
|  | Cereal fodder crops (Certified) | MT |  |  |  |  |  |  | 0.20 |  |  |  |  |  |  |
|  | Plantation of roots/stem cuttings of perennial grasses | Lakh |  |  |  |  |  |  | 1.00 |  |  |  |  |  |  |
|  | Planting of fodder trees | Lakh |  |  |  |  |  |  | 1.00 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **C.2** | **Demonstration of Crop residues management technologies** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **a** | **Demonstration of crop residue management through Mower** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | High speed wet biomass management units large capacity *(note m)* | Nos. |  |  |  |  |  |  | 40.00 |  |  |  |  |  |  |
|  | Mower upto 5HP (preferably combine prevention version) *(note n)* | Nos. |  |  |  |  |  |  | 1.00 |  |  |  |  |  |  |
|  | Mower 5-15 HP (preferably combine prevention version) *(note o)* | Nos. |  |  |  |  |  |  | 6.00 |  |  |  |  |  |  |
|  | Mower over 15 HP (reaping, baling, threshing & bundle making & prime mower) (preferably combine prevention version) *(note p)* | Nos. |  |  |  |  |  |  | 20.00 |  |  |  |  |  |  |
| **C.3** | **Demonstration of Fodder Conservation Technologies** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **a** | **Demonstration of fodder conservation through Chaff cutter and Fodder storage Godown** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Chaff cutter Manual | Nos. |  |  |  |  |  |  | 0.10 |  |  |  |  |  |  |
|  | Chaff cutter Power | Nos. |  |  |  |  |  |  | 0.25 |  |  |  |  |  |  |
|  | Conveyer fed chaff-cutter (Chopper Loader) to DCS | Nos. |  |  |  |  |  |  | 1.75 |  |  |  |  |  |  |
|  | Fodder storage godown dry & green dual purpose | Nos. |  |  |  |  |  |  | 15.00 |  |  |  |  |  |  |
| **b** | **Demonstration of Green Fodder Conservation through Silage making** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Low cost silage making at DCS Level (note q) | No. |  |  |  |  |  |  | 10.00 |  |  |  |  |  |  |
| **C.4** | **Demonstration and Propagation of modern fodder production & conservation technologies** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Establishment of Micro - training centre | Nos. |  |  |  |  |  |  | 10.00 |  |  |  |  |  |  |
|  | Commercial fodder production through Participating Institutions | Ha |  |  |  |  |  |  | 5.00 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **D** | **Extension activities** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D.1 | Village awareness programmes for enhancing adoption of cattle feed, green fodder & mineral mixtures | No. of programmes |  |  |  |  |  |  | 0.10 |  |  |  |  |  |  |
| D.2 | Awareness campaign on calf rearing *(note r)* | No. of campaigns |  |  |  |  |  |  | 0.30 |  |  |  |  |  |  |
| D.3 | Promotional materials (poster, pamphlet, reading material) *(note s)* | Nos. |  |  |  |  |  |  | 0.03 |  |  |  |  |  |  |
| D.4 | Feed testing charges for CF, MM and CRP feed |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Feed testing charges under CRP *(note t)* | Nos. |  |  |  |  |  |  | 0.120 |  |  |  |  |  |  |
|  | Feed testing under Animal Nutrition Advisory Services *(note u)* | Nos. |  |  |  |  |  |  | 0.05 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **E** | **Capacity Building / Training** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E.1 | Training to ANO | No. of ANO |  |  |  |  |  |  | 0.20 |  |  |  |  |  |  |
| E.2 | Training to AN and CRP Supervisors *(with 50% physical contingency)* | No. of AN & CRP supervisors |  |  |  |  |  |  | 0.20 |  |  |  |  |  |  |
| E.3 | Milch animal rearing for dairy farmers | Nos. |  |  |  |  |  |  | 0.10 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **F** | **Project Monitoring Support** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| F.1 | Salary to Animal Nutrition Officer (ANO) (1 per district) *(note v)* | No. |  |  |  |  |  |  | 7.20 |  |  |  |  |  |  |
| F.2 | Salary to Animal Nutrition Supervisor (2 per district) *(note w)* | No. |  |  |  |  |  |  | 3.00 |  |  |  |  |  |  |
| F.3 | Salary to CRP Supervisor (5 per district) *(note x)* | No. |  |  |  |  |  |  | 1.80 |  |  |  |  |  |  |
| F.4 | Laptop for ANO *(note y)* | No. |  |  |  |  |  |  | 0.70 |  |  |  |  |  |  |
| F.5 | Tablet for Animal Nutrition Supervisors and CRP Supervisors *(with 20% physical contingency) (note z)* | No. |  |  |  |  |  |  | 0.17 |  |  |  |  |  |  |
| F.6 | Camera to ANO *(note aa)* | Nos. |  |  |  |  |  |  | 0.30 |  |  |  |  |  |  |
| F.7 | Propulsion charges for ANO *(note ab)* | No. |  |  |  |  |  |  | 3.60 |  |  |  |  |  |  |
| F.8 | Mobile and internet charges *(note ac)* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Animal Nutrition Officer | No. |  |  |  |  |  |  | 0.06 |  |  |  |  |  |  |
|  | Animal Nutrition & CRP Supervisor | No. |  |  |  |  |  |  | 0.04 |  |  |  |  |  |  |
| F.9 | Office expenses for ANO *(note ad)* | No. |  |  |  |  |  |  | 0.05 |  |  |  |  |  |  |
|  | **Total** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Price Contingency @6%** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total with price contingency @ 6%** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Pattern of Assistance** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A | ODA Loan |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B | Grant |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C | Participating Institution (PI) Contribution |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Note:** |  |  |  |  |  |  |  |  |  |  |  |  |
| a - Pregnancy Feed @ Rs 28/kg feed including transportation cost (2 Rs./kg). Feed for 60 days (3 kg per animal per day). 50% assistance considered under project. | | | | | | | | | | | | |
| b - Calf Starter @ Rs 30/kg feed including transportation cost (2 Rs./kg). Feed for 178 days (225 kg per animal per module). 50% assistance considered under project. | | | | | | | | | | | | |
| c - Calf Growth meal @ Rs 25/kg feed including transportation cost (2 Rs./kg). Feed for 574 Days (2.5 kg per animal per day). 50% assistance considered under project. | | | | | | | | | | | | |
| d - @ Rs 30 / kg transition feed. 4 kg per day for 90 days. 50% assistance considered under project. | | | | | | | | | | | | |
| e - Calf Rearing kit (ear tags, ear tag applicator, measuring tape, weighing balance 5 & 25 kg, 1 bag) @ Rs. 2500 with 20% extra | | | | | | | | | | | | |
| f - Register (100 pages) 300 number, per village | | | | | | | | | | | | |
| g - Mineral Mixture will be given 100 gm per day for 300 days per animal. Cost of Mineral mixture is considered Rs. 80 per kg on which 50% assistance would be provided. | | | | | | | | | | | | |
| h - Transition feed and early lactation feed will be given 4 kg per day for 21 days before and 90 days after calving per animal. For non CRP POIs only i.e. for 15 POIs. Cost of feed is considered Rs. 30 per kg on which 50% assistance would be provided. | | | | | | | | | | | | |
| i - Working kit (ear tag applicator, 1 bag) @ Rs. 1000 with 20% extra | | | | | | | | | | | | |
| j - Register (100 pages) 100 number, per village | | | | | | | | | | | | |
| k - Cost of legumes (Berseem) is considered Rs. 350 per Kg on which assistance of Rs. 30 has been considered for TL seed under the project | | | | | | | | | | | | |
| l - Cost of legumes (Berseem) is considered Rs. 350 per Kg on which assistance of Rs. 40 has been considered for certified seed under the project | | | | | | | | | | | | |
| m - Mower set with cutting width up to 300 cm, hp 75 to 150, for carrying out harvesting, lining, chopping, loading, threshing, baling and wrapping of cereal & fodder crops ensuring zero wastage of fodder. Complete in all respects with prime mover and box type trailer set. | | | | | | | | | | | | |
| n - Mower set with cutting width up to 100 cm, hp below 5, for carrying out harvesting and lining of cereal & fodder crops at ground level ensuring zero wastage of fodder. | | | | | | | | | | | | |
| o - Mower set with cutting width up to 150 cm, 5-15 HP, option of ride on; for carrying out harvesting and lining of cereal & fodder crops at ground level ensuring zero wastage of fodder. With add on facility for chopping, threshing or shredding. | | | | | | | | | | | | |
| p - Mower set with cutting width up to 220 cm, hp below 75, for carrying out harvesting, lining, chopping, loading, threshing, baling and wrapping of cereal & fodder crops ensuring zero wastage of fodder. Complete in all respects with prime mover and box type trailer set. | | | | | | | | | | | | |
| q - Silage of 250 MT at DCS level | | | | | | | | | | | | |
| r - Awareness campaigns on calf rearing @ Rs 30,000 per campaign (1 campaign per supervisor); Calf rally, Award to winners, High tea, stage, sound system, etc. | | | | | | | | | | | | |
| s - Poster, Pamphlet or reading material for farmers per village | | | | | | | | | | | | |
| t - 20 tests per module (spread over 2 years) | | | | | | | | | | | | |
| u - 20 tests per module (spread over 2 years) | | | | | | | | | | | | |
| v - Rs. 60,000 per month per ANO per district for FD, CRP and Feed &Feed Supplement activities | | | | | | | | | | | | |
| w - Rs. 25,000 per month (Rs. 20000 salary & Rs.5000 propulsion charges) per Animal Nutrition Supervisor (2 supervisor per district) for FD and Feed Supplement activities | | | | | | | | | | | | |
| x - Rs. 15,000 per month (Rs.12000 salary and Rs.3000 propulsion charges) per CRP Supervisor for CRP activities | | | | | | | | | | | | |
| y - 1 Laptop per ANO of Rs. 70000 | | | | | | | | | | | | |
| z - Rs. 17,000 per Animal Nutrition and CRP supervisor with 20% contingency | | | | | | | | | | | | |
| aa - 1 Camera per ANO of Rs. 30000 | | | | | | | | | | | | |
| ab - Propulsion charges of Rs. 30,000 per month per ANO | | | | | | | | | | | | |
| ac - Mobile and internet charges of Rs. 500 per month per ANO & Rs. 300 per CRP Supervisor | | | | | | | | | | | | |
| ad - Office expense Rs. 5000 per month per ANO | | | | | | | | | | | | |

**Component F – Training and Capacity Development**

| **No.** | **Particulars** | **Physical Targets** | | | | | | | **Unit Cost** (Rs. in Lakh) | **Financial Outlays** (Rs. in Lakh) | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Unit** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **Total** |
| **Component A - Strengthening Milk Procurement Infrastructure** | | | | | | | | | | | | | | | |
| **A.1** | **Programmes** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Farmers' induction program | Nos. |  |  |  |  |  |  | 0.025 |  |  |  |  |  |  |
|  | Farmers orientation program | Nos. |  |  |  |  |  |  | 0.03 |  |  |  |  |  |  |
|  | Awareness program on clean milk production | Nos. |  |  |  |  |  |  | 0.001 |  |  |  |  |  |  |
|  | Management Committee Members (MCM) Orientation programme for New DCS | Nos. |  |  |  |  |  |  | 0.02 |  |  |  |  |  |  |
|  | Board of Directors (BOD) orientation program | Nos. |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |
|  | Business Appreciation Program for Existing Proc. Staff | Nos. |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |
| **A.2** | **Training** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Basic Training for new DCS Secretaries | Nos. |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |
|  | Refresher Training of DCS secretaries | Nos. |  |  |  |  |  |  | 0.02 |  |  |  |  |  |  |
|  | Operation & Maintenance of BMC/AMCU/DPMCU Operators | Nos. |  |  |  |  |  |  | 0.1 |  |  |  |  |  |  |
|  | Strategic Dairy Business Management for MD & Section Heads | Nos. |  |  |  |  |  |  | 0.5 |  |  |  |  |  |  |
|  | **Sub Total (Component A)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Component B - Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed)** | | | | | | | | | | | | | | | |
| B1 | Dairy Plant Management | Nos. |  |  |  |  |  |  | 0.3 |  |  |  |  |  |  |
| B2 | Dairy Plant Hygiene and Sanitation ensuring compliances of FSSAI regulations | Nos. |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |
| B3 | Modern Dairy Management practices including TQM, Kaizen, 5S, ISOs | Nos. |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |
|  | **Sub Total (Component B)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Component C - Support for Marketing Infrastructure** | | | | | | | | | | | | | | | |
| C1 | Retailers Awareness Programme | Nos. |  |  |  |  |  |  | 0.001 |  |  |  |  |  |  |
| C2 | Marketing Management Training for officers | Nos. |  |  |  |  |  |  | 1 |  |  |  |  |  |  |
| C3 | Marketing Approaches in Milk & Milk Products for marketing team | Nos. |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |
|  | **Sub Total (Component C)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Component D - Support for ICT Infrastructure** | | | | | | | | | | | | | | | |
| D1 | Software Training at POI Level | Nos. |  |  |  |  |  |  | 0.38 |  |  |  |  |  |  |
| D2 | Training at DCS Level | Nos. |  |  |  |  |  |  | 0.07 |  |  |  |  |  |  |
|  | **Sub Total (Component D)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay (A+B+C+D)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Price Contingency @ 6%** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay with Price Contingency** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Pattern of Assistance** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **A** | **JICA ODA Loan** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **B** | **Grant** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **C** | **PI’s Contribution** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Outlay** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Annex XVI: Sustainability of New DCS**

| **No.** | **Particulars** | **Unit (in Rs.)** | **Yr 1** | **Yr 2** | **Yr 3** | **Yr 4** | **Yr 5** | **Yr 6** | **Yr 7** | **Yr 8** | **Yr 9** | **Yr 10** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A** | **DCS details** |  |  |  |  |  |  |  |  |  |  |  |
|  | Number of producers to be enrolled (incr.) |  |  |  |  |  |  |  |  |  |  |  |
|  | Number of producers to be enrolled (cum.) |  |  |  |  |  |  |  |  |  |  |  |
|  | Average milk collected per member (KgPD) |  |  |  |  |  |  |  |  |  |  |  |
|  | Estimated Milk procurement (KgPD) (incr.) |  |  |  |  |  |  |  |  |  |  |  |
|  | Estimated Milk procurement (KgPD) (cum.) |  |  |  |  |  |  |  |  |  |  |  |
|  | Milk Cans (incr.) |  |  |  |  |  |  |  |  |  |  |  |
|  | Milk Cans (Cum) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **B** | **Investment** |  |  |  |  |  |  |  |  |  |  |  |
|  | Milk collection accessories |  |  |  |  |  |  |  |  |  |  |  |
|  | DPMCU |  |  |  |  |  |  |  |  |  |  |  |
|  | Milk Cans |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total investment** |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **C** | **Operating statement** |  |  |  |  |  |  |  |  |  |  |  |
| **C1** | **Income** |  |  |  |  |  |  |  |  |  |  |  |
|  | Stipend to DCS Secretary (Sub project funding) |  |  |  |  |  |  |  |  |  |  |  |
|  | DCS Commission |  |  |  |  |  |  |  |  |  |  |  |
|  | Margin to DCS from Local Sale (@ Rs. 25/- per Litre of milk) (1 % of total milk procured) |  |  |  |  |  |  |  |  |  |  |  |
|  | Sample milk sale (30 ml per sample) |  |  |  |  |  |  |  |  |  |  |  |
|  | Income from Weight-Volume difference  (Rs. 20.5/- per Kg of milk) |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total income** |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **C2** | **Expenses** |  |  |  |  |  |  |  |  |  |  |  |
|  | House Rent @ Rs. 300/- per month |  |  |  |  |  |  |  |  |  |  |  |
|  | Electricity @ Rs. 200/- per month |  |  |  |  |  |  |  |  |  |  |  |
|  | Water @ Rs. 50/- per month |  |  |  |  |  |  |  |  |  |  |  |
|  | Other expenses (stationary - 50, travelling @ Rs. 250/- per month) |  |  |  |  |  |  |  |  |  |  |  |
|  | Testing expenses @ Rs. 0.10/- per sample |  |  |  |  |  |  |  |  |  |  |  |
|  | Testing equipment maintenance expenses |  |  |  |  |  |  |  |  |  |  |  |
|  | Audit fee |  |  |  |  |  |  |  |  |  |  |  |
|  | Other expenses (Board meeting, guest entertainment, etc.) |  |  |  |  |  |  |  |  |  |  |  |
|  | Honararium to Secretary @ Rs. 3000/- per month (including stipend received from the project) |  |  |  |  |  |  |  |  |  |  |  |
|  | Depreciation |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total expenses** |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **C3** | **Profit** |  |  |  |  |  |  |  |  |  |  |  |
| **C4** | **Depreciation** |  |  |  |  |  |  |  |  |  |  |  |
| **C5** | **Cash Profit** |  |  |  |  |  |  |  |  |  |  |  |
| **C6** | **Net profit** |  |  |  |  |  |  |  |  |  |  |  |

Figures are indicative.

**Annex XVII: Sustainability of BMC**

| **No.** | **Details** | **Unit cost (Rs. Lakh)** | **Yr 1** | **Yr 2** | **Yr 3** | **Yr 4** | **Yr 5** | **Yr 6** | **Yr 7** | **Yr 8** | **Yr 9** | **Yr 10** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A** | **BMC DCS details** |  |  |  |  |  |  |  |  |  |  |  |
|  | Pourer members in BMC DCS |  |  |  |  |  |  |  |  |  |  |  |
|  | Pourer members in satellite villages/DCS |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total pourer members** |  |  |  |  |  |  |  |  |  |  |  |
|  | Milk from Main BMC Villages (KgPD) |  |  |  |  |  |  |  |  |  |  |  |
|  | Milk from satellite villages/DCS (KgPD) |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total milk procured** |  |  |  |  |  |  |  |  |  |  |  |
|  | **Proposed BMC capacity (KL)** |  |  |  |  |  |  |  |  |  |  |  |
|  | **BMC Utilisation (%)** |  |  |  |  |  |  |  |  |  |  |  |
| **B** | **Investment** |  |  |  |  |  |  |  |  |  |  |  |
|  | Milk collection accessories | 0.16 |  |  |  |  |  |  |  |  |  |  |
|  | 2 Kl BMC | 8.00 |  |  |  |  |  |  |  |  |  |  |
|  | AMCU | 1.58 |  |  |  |  |  |  |  |  |  |  |
|  | BMC accessories | 0.31 |  |  |  |  |  |  |  |  |  |  |
|  | Cans | 0.03 |  |  |  |  |  |  |  |  |  |  |
|  | **Total investment** |  |  |  |  |  |  |  |  |  |  |  |
| **C** | **Operating statement** |  |  |  |  |  |  |  |  |  |  |  |
| **C1** | **Income** | 0.9 |  |  |  |  |  |  |  |  |  |  |
|  | DCS Commission | 0.0000012 |  |  |  |  |  |  |  |  |  |  |
|  | Margin to DCS from Local Sale (@ Rs. 10/- per Litre of milk) | 0.0001 |  |  |  |  |  |  |  |  |  |  |
| (10% of total milk procured) |  |
|  | Income from Weight-Volume difference | 0.000346 |  |  |  |  |  |  |  |  |  |  |
| (Rs. 34.63/- per Kg of milk) |
|  | Sample milk sale(@30ml per pourer member) | 0.000346 |  |  |  |  |  |  |  |  |  |  |
|  | **Total Income** |  |  |  |  |  |  |  |  |  |  |  |
| **C2** | **Expenses at BMC** |  |  |  |  |  |  |  |  |  |  |  |
|  | BMC DCS office Rent | 0.12 |  |  |  |  |  |  |  |  |  |  |
|  | Expenses towards testing equipments maintenance | 0.02 |  |  |  |  |  |  |  |  |  |  |
|  | Repair and Maintenance of BMC *(AMC of Rs. 18000 per year + 12.36% service tax + Rs. 24000 for parts not covered in AMC like gas refilling, filter, oil etc.)* | 0.44 |  |  |  |  |  |  |  |  |  |  |
|  | Repair and Maintenance of AMCU (AMC of Rs. 5650 per year + 12.36% service tax + Rs. 1000 for parts not covered in AMC) | 0.07 |  |  |  |  |  |  |  |  |  |  |
|  | Battery Expenses@ Rs 7000/- to be replaced once in 3 yrs | 0.02 |  |  |  |  |  |  |  |  |  |  |
|  | Water @ Rs. 100/- per month | 0.01 |  |  |  |  |  |  |  |  |  |  |
|  | Testing expenses @ 0.10 per sample | 0.000001 |  |  |  |  |  |  |  |  |  |  |
|  | Audit fees | 0.12% |  |  |  |  |  |  |  |  |  |  |
|  | Stationery Expenses | 0.05 |  |  |  |  |  |  |  |  |  |  |
|  | Other expenses (Board meeting, guest entertainment, etc.) | 0.02 |  |  |  |  |  |  |  |  |  |  |
|  | BMC DCS secretary salary @ Rs. 3000/- per month | 0.3 |  |  |  |  |  |  |  |  |  |  |
|  | BMC DCS tester salary @ Rs. 2000/- per month | 0.24 |  |  |  |  |  |  |  |  |  |  |
|  | BMC DCS Helper salary @ Rs. 1500/- per month | 0.18 |  |  |  |  |  |  |  |  |  |  |
|  | Depreciation |  |  |  |  |  |  |  |  |  |  |  |
|  | *Actual Depreciation* |  |  |  |  |  |  |  |  |  |  |  |
|  | *Less Grant recognised* |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Expenses** |  |  |  |  |  |  |  |  |  |  |  |
| **C3** | **Profit** |  |  |  |  |  |  |  |  |  |  |  |
| **C4** | **Depreciation** |  |  |  |  |  |  |  |  |  |  |  |
| **C5** | **Cash Profit** |  |  |  |  |  |  |  |  |  |  |  |

Figures are indicative.

**Annex XVIII: Projected Operating Statement of the PI**

**A. Projected Material Balancing Statement**

| **Particulars** | **Unit** | **Fat %** | **SNF %** | **2020-21** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **2026-27** | **2027-28** | **2028-29** | **2029-30** | **2030-31** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Procurement** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cow milk (Own Procurement) | TKgPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Milk (from other Unions) | TKgPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Total** | **TKgPD** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Total Fat Procured in Milk** | **MT** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Total SNF Procured in Milk** | **MT** |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Disposal of Milk in Sachets** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Toned milk | TLPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Double toned milk | TLPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Standard milk | TLPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Full cream milk | TLPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Fat Disposed-Milk** | **MT** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SNF Disposed-Milk** | **MT** |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **DISPOSAL (MILK PRODUCTS)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Butter | MTPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ghee | MTPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Curd | MTPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lassi | TLPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Flavoured Milk | TLPD |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other \_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other \_\_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Other \_\_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Fat Disposed-Products** | **MT** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **SNF Disposed-Products** | **MT** |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Processing Loss** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fat Loss on Liquid Milk Procured | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SNF Loss Liquid Milk Procured | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Surplus/Deficit** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fat Surplus | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SNF Surplus | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Conversion (Butter) | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Conversion (SMP) | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production of Ghee | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Local sale of Ghee | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ghee Sale (Depo) | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Purchase of WB | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Purchase of SMP | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Opening Stock Ghee | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ghee Production | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ghee Sales | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Closing Stock of Ghee | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Opening Stock of SMP | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SMP Purchased | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SMP Production | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sale of SMP | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Use of SMP | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Closing Stock of SMP | MT |  |  |  |  |  |  |  |  |  |  |  |  |  |

**B. Projected Operating Statement**

| **No.** | **Particulars** | **Unit Rate** | | **Projected (Rs Lakh)** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Unit** | **Rs.** | **2021-22** | **2022-23** | **2023-24** | **2024-25** | **2025-26** | **2026-27** | **2027-28** | **2028-29** | **2029-30** | **2030-31** |
| 1 | **Sales Revenue** |  |  |  |  |  |  |  |  |  |  |  |  |
| i | **Sale of Liquid Milk** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Toned milk |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 200 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6000 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Double Toned milk |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Full Cream milk |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6000 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Bulk Milk Sales |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Other Sale (if any) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Sales of Liquid Milk** |  |  |  |  |  |  |  |  |  |  |  |  |
| ii | **Sale of Milk Products** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Butter** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 100 gm |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 gm |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Ghee** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 litre |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 5 litre |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Curd** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 200 gm |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 gm |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 kg |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Lassi** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 180 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Flavoured milk** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 200 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Other 1** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Variant \_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Other 2** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Variant \_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Variant \_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Other 3** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Variant \_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Variant \_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Sale of White Butter |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Sale of SMP |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Milk product sales** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **TOTAL INCOME (i+ii)** |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | **Raw-material Cost** |  |  |  |  |  |  |  |  |  |  |  |  |
| i | **Milk & milk products** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Opening stock (Milk/Milk Products) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Purchase of Milk from DCS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Avg. Purchase of SMP |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Avg. Purchase of Butter |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Closing (Milk/Milk Products) |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ii | **Other materials used in milk products in New UHT plant** |  |  |  |  |  |  |  |  |  |  |  |  |
| a | Sugar |  |  |  |  |  |  |  |  |  |  |  |  |
| b | Fruit concentrate/ flavour |  |  |  |  |  |  |  |  |  |  |  |  |
| C | Salt |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Cost of Raw Material** |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | **Gross Margin (1-2)** |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | **Variable Costs** |  |  |  |  |  |  |  |  |  |  |  |  |
| i | Procurement Transport (DCS) |  |  |  |  |  |  |  |  |  |  |  |  |
| ii | Processing & Manufacturing Expenses |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Conversion Cost |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - White Butter |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - SMP |  |  |  |  |  |  |  |  |  |  |  |  |
| iii | **Packing Cost** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Toned milk** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 200 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6000 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Double Toned milk** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Full Cream milk** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6000 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Ghee** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 litre |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 5 litre |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Curd** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 200 gm |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 gm |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1 kg |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Lassi** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 180 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 500 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Flavoured milk** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 200 ml |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Other 1** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Variant \_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Other 2** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Variant \_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Variant \_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Other 3** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Variant \_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Variant \_\_\_\_\_\_ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iv | Distribution Expenses (milk & milk products) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total of variable costs (i+ii+iii+iv)** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **% Variable Cost** |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | **Contribution (3-4)** |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | **Fixed Costs** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Salaries & Benefits to Employees |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Additional Salary for the new Plant |  |  |  |  |  |  |  |  |  |  |  |
|  | Administrative Expenses |  |  |  |  |  |  |  |  |  |  |  |
|  | Marketing Cost |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Total Fixed Cost** |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | **Profit Before Depreciation, Interest & Taxes (PBDIT) (5-6+7)** |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 | **Financial Cost** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Interest on Long Term Loan |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Interest on Working Capital |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Other finance cost |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | **Depreciation** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Existing assets |  |  |  |  |  |  |  |  |  |  |  |  |
|  | New Dairy Plant |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 | **Net Profit before tax (8-9-10)** |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 | Income Tax @ 34.9% |  |  |  |  |  |  |  |  |  |  |  |  |
| **14** | **Net Profit after Tax (11-12)** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Accumulated Profit/loss (Op. balance)** |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Calculation of ROI** |  |  |  |  |  |  |  |  |  |  |  |  |
|  | PAT +Interest |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Net Block |  |  |  |  |  |  |  |  |  |  |  |  |
|  | New Assets Created |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Cumulative Investment |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **ROI** |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Profit After Tax (PAT) + Interest + Deprn |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Total Repayment |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **DSCR** |  |  |  |  |  |  |  |  |  |  |  |  |

*Figures are indicative. ­*