

F. No.4-9/2021-DP (E-19690)
Government of India
Ministry of Fisheries, Animal Husbandry and Dairying
Department of Animal Husbandry and Dairying

Krishi Bhawan, New Delhi
Dated: 3rd August 2021

Subject: Administrative approval for implementation of Central Sector Scheme "National Programme for Dairy Development" from 2021-22

The undersigned is directed to convey the Administrative Approval towards implementation of restructured Central Sector Scheme "National Programme for Dairy Development (NPDD)" with an allocation of Rs 1790.00 crore from 2021-22 to 2025-26.

2. National Programme for Dairy Development (NPDD) aims to enhance quality of milk and milk products and increase share of organised procurement, processing, value addition and marketing. This scheme has two (2) components:-

(i) The **Component 'A'** focuses towards creating/strengthening of infrastructure for quality milk testing equipment as well as primary chilling facilities for State Cooperative Dairy Federations/ District Cooperative Milk Producers' Union/SHG run private dairy/Milk Producer Companies/Farmer Producer Organisations.

The committed liabilities of ongoing NPDD scheme approved till 31.03.2021 shall be met under the revised scheme during first two years i.e. 2021-22 & 2022-23 as per administrative approval issued at the time of approval of respective projects.

(ii) The **Component 'B'** provides financial assistance from Japan International Cooperation Agency (JICA) as per project agreement already signed with them. The central Government share in this project is proposed to be funded through NPDD.

2. A copy of the operational guidelines of NPDD (Component A & B) and brief description of activities to be taken up is **enclosed** herewith. The proposal may be prepared by furnishing requisite information as per prescribed factsheet and Annexure of the guideline. The project proposal of SIA duly recommended by State Government/SLTMC should be submitted to DAHD for consideration.

3. Implementation Mechanism:

3.1 At the apex level, there will be a Central Project Steering Committee (CPSC), headed by Secretary (AHD), GoI, which will provide policy and strategic support to the project, monitor the progress of approved projects of NPDD, consider annual action plans, give policy directions and shall have the authority to re-appropriate component-wise fund requirement in approved programmes, change the eligibility conditions and other terms and conditions of the agreements between stakeholders, implementation

arrangement and can change the composition of committees viz. CPSC and PSC.

3.2 Project Sanctioning Committee (PSC) headed by Secretary AHD, GoI will have the authority to sanction projects after appraisal by Dairy division of DAHD. PSC will have power for re-appropriation of funds within the components/within the approved sub projects, change norms and change unit cost of items of the project. PSC will be responsible for consideration of proposals received from/recommended by SLTMC.

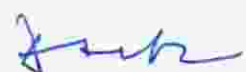
3.3 At the State level, there will be a State Level Technical Management Committee (SLTMC), which will be headed by Additional Chief Secretary/Principal Secretary/Secretary/Commissioner of the State, comprising representative of DAHD, SRLM, State Dairy Federation and NDDB as members for effective implementation and to have synergy among the similar dairy development programmes implemented in the State. SLTMC must ensure that there is no duplication of activities and project area in the States.

4. Participating States/State Implementing Agencies will submit quarterly progress reports (QPR), annual report, audit reports etc along with utilization certificate duly signed by Administrative Secretary of the concerned Department of the State Government in the prescribed formats. In case of release of last instalment under the project, consolidated utilization certificate, Quarterly progress Report, audit expenditure statement may be submitted. State Level Technical Monitoring Committee (SLTMC) meetings shall be held regularly to review the progress of project under intimation to this Department. The funds released under the project will be subjected to AG Audit of the concerned State.

5. This issues with the approval of Secretary (AHD) vide Note#16 diary No.E-19690 dated 29.07.2021.

Yours faithfully,

Encl.: a/a



(Deepak Sethi)

Under Secretary to the Government of India

DEEPAK SETHI
Under Secretary
DAHD

Distribution:

1. Principal Secretary/Secretary, Department of Animal Husbandry/Dairy Development, All States and UT's
2. Advisor (PAMD), NITI Ayog, Agriculture Division, Yojana Bhawan, New Delhi
3. Chairman, National Dairy Development Board, Anand, Gujarat
4. Managing Director, Milk Federation, All States
5. Director, National Dairy Research Institute, Karnal, Haryana- 132001
6. Principal Accounts Officer, Ministry of Fisheries, Animal Husbandry & Dairying, Department of Animal Husbandry and Dairying, Jeevan Tara Building, Parliament Street, New Delhi-110001.

7. Chief Controller of Accounts Department of Animal Husbandry and Dairying, Krishi Bhawan, New Delhi-110001.
8. The Accountant General, Commerce, Works and Miscellaneous, AGCR Building, Near ITO, New Delhi-110 002.
9. Deputy Director General (Animal Sciences), ICAR, Krishi, Krishi Bhawan, New Delhi
10. Chief Representative, JICA India Office, Japan International Cooperation Agency (JICA), 16th Floor, Hindustan Times House, 18-20, Kasturba Gandhi Marg, New Delhi - 110 001, India
11. Director, National Rural Livelihoods Mission (NRLM), Ministry of Rural Development, Krishi Bhawan, New Delhi

Copy for kind information to:

1. PS to Hon'ble Minister, FAHD
2. PS to Hon'ble MOS (SKB), FAHD
3. PS to Hon'ble MOS (LM), FAHD
4. Sr.PPS to Secretary (AHD)
5. PPS to AHC
6. PPS to AS &FA
7. PS to JS(C&DD)/Dir (Budget)/DC(CS)/AC(DS)
8. US (Fin)/Guard File



Government of India
Department of Animal Husbandry and Dairying
(Ministry of Fisheries, Animal Husbandry and Dairying)

Operational Guidelines
of
National Programme for Dairy Development
July 2021

OPERATIONAL GUIDELINES FOR IMPLEMENTATION OF NATIONAL PROGRAMME FOR DAIRY DEVELOPMENT (NPDD)

National Programme for Dairy Development (NPDD) aims to enhance quality of milk and milk products and increase share of organised procurement, processing, value addition and marketing. This scheme has two (2) components.

1.1 The **Component 'A'** focuses towards creating/strengthening of infrastructure for quality milk testing equipment as well as primary chilling facilities for State Cooperative Dairy Federations/ District Cooperative Milk Producers' Union/SHG run private dairy/Milk Producer Companies/Farmer Producer Organisations

1.2 The **Component 'B'** provides financial assistance from Japan International Cooperation Agency (JICA) as per project agreement already signed with them. The central Government share in this project is proposed to be funded through NPDD.

1.3 The operational guidelines of Component 'A' and 'B' are given at **Appendix-I & II** respectively.

COMPONENT A

2. AREA OF OPERATION:

2.1 Component A will be implemented throughout the country.

2.2 Component A will finance all components in States where Component B- Dairying through Cooperatives (DTC) under JICA assistance is not implemented.

2.3 In the case of States covered under Component B- DTC under JICA assistance, namely, Bihar and Uttar Pradesh, any addition of state shall be in compliance to the loan agreement between Government of India and Government of Japan. The Component A will cover those components that are not covered by DTC under JICA assistance.

3. DURATION OF THE PROJECT:

National Programme for Dairy Development (NPDD) will be implemented throughout the country from 2021-22 to 2025-26 and will continue till 2027-28.

The committed liabilities of ongoing NPDD scheme approved till 31.03.2021 shall be met under the revised scheme during first two years i.e. 2021-22 & 2022-23 as per administrative approval issued at the time of approval of respective projects. Further, the committed liability to be created under above sub-schemes during the implementation period from 2021-22 to 2025-26, will be met through budgetary support during next two years i.e. 2026-27 & 2027-28.

4. OBJECTIVE

- a) To create and strengthen infrastructure for quality milk including cold chain infrastructure linking the farmer to the consumer;
- b) To provide training to dairy farmers for clean milk production;
- c) To create awareness on Quality & Clean Milk Production;
- d) To support research and development on Quality milk and milk products

5 INSTITUTIONAL ARRANGEMENT, IMPLEMENTING AGENCIES AND PROCESS FLOW CHARTS

NPDD	Component A		
	Cooperative Sector	SHG run private dairy (registered under NRLM/SRLM)	MPC and FPOs

NPDD	Component A		
	Cooperative Sector	SHG run private dairy (registered under NRLM/SRLM)	MPC and FPOs
Recommending authority (for submission of proposals)	State Level Technical Management Committee/ Additional Chief Secretary/Principal Secretary/Secretary/Commissioner of the State (Dairy Development & Animal Husbandry Department) – Shall screen and recommend proposals to avoid duplication.		
State Implementing Agencies	All State Dairy Federations in States where Milk Federation is operating. For States where there is no State Level Milk Federation, Cooperative Milk Union covering major area of operation shall be the State Implementing Agency	State Rural Livelihood Mission (SRLM), a registered society established by respective Department of Rural Development in States	National Dairy Development Board through State/Regional offices
End implementing Agencies	All State Dairy Federations and their constituent District/Taluka Level Milk Unions and farmer producer organisations, Government dairy/other registered Cooperative Unions (like dairy cooperatives registered under Multi State Coop. Act and Mutually Aided Cooperative Society Act etc.).	District Rural Development Authorities (DRDAs) operating at district level	Milk Producer Companies/ Farmer Producer organisations

NPDD	Component A		
	Cooperative Sector	SHG run private dairy (registered under NRLM/SRLM)	MPC and FPOs
Village level Participating Agencies	All dairy cooperative societies and other agencies associated or affiliated to above SIAs or EIAs like village level NGOs, SHGs, Universities, Colleges, ICAR Institutes etc.	All dairy processors and their feeder milk collection/cooling/chilling centres shall be eligible to receive assistance subject to the norms of the scheme	Milk Producer Institutions (MPIs)

5.1 Cooperative Sector:

State Dairy Federations for States viz Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Nagaland, Orissa, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Uttarakhand, West Bengal; and Milk Unions in remaining States and UTs will be the State Implementing Agency and shall be responsible for implementation of the approved projects. However, above SIAs may make necessary arrangement to ensure implementation of specific activities under approved projects through concerned End Implementing Agencies (EIAs) operating at district/taluka level.

In case of Government dairy/other registered Cooperative Unions (like dairy cooperatives registered under Multi State Coop. Act and Mutually Aided Cooperative Society Act etc.), not affiliated/recognized by SIAs may directly forward their proposal through State Level Technical Management Committee (SLTMC) under the programme. However, central assistance for admissible components in such cases shall be released to the concerned State Implementing Agencies directly by GoI.

5.2 SHG run private dairy (registered under NRLM/SRLM)

State Rural Livelihood Mission (SRLM), a registered society established by respective Department of Rural Development in States will be the State Implementing Agency and District Rural Development Authorities (DRDAs) operating at district level shall be the End Implementing Agency for SHG run private dairies. Government of India shall release financial assistance to respective SRLM, which in turn will release fund to District Level Rural Development authorities in respect of approved projects for SHG run private

dairies.

5.3 Village level Participating Agencies (VPAs):

5.3.1 In Cooperative Dairy Sector, all dairy cooperative societies and other agencies associated or affiliated to above SIAs or EIAs like NGOs, SHGs, village level affiliated agencies of Universities, Colleges and ICAR institutions etc. shall be eligible to participate and receive assistance under the scheme.

5.3.2 In SHG run private dairy, all dairy processors and their feeder milk collection/cooling/ chilling centres shall be eligible to receive assistance subject to the norms of the scheme

6. ACTIVITY COMPONENTS TO BE FUNDED

The list of the activities which will be funded under NPDD are as follows:

6.1 Milk Chilling facilities (including BMC) at primary level

6.1.1 Civil Work

6.1.2 Equipment for Bulk Milk Coolers & Accessories

6.2 Establishment of milk testing laboratories

6.2.1 At DCS/Village Level Laboratories/ at Bulk Milk Cooler (BMC) centers/At District Level Laboratories/At State Level Laboratories including purchase of laboratory equipments as per FSS Act/Codex

6.2.2 Purchase of laboratory equipments (for chemical/ microbial (for district/union/state level) analysis of milk and milk products)

6.2.3 Purchase of laboratory furniture

6.2.4 System for quality assurance (HACCP/ISO) including equipment/computer hardware and software etc

6.3 Certification and accreditation

6.3.1 Certification for ISO/HACCP/Quality Mark etc.

6.3.2 Certifications as per Food Safety and Standards Regulation 2011

6.4 Information and Communication Technology Networking

Strengthening of all the cooperative dairies 30 TLPD and above in cooperative sector with the software systems like block chain, SAP, ERP for developing traceability, quality network etc.

6.5 Training & Farmer Awareness Programme

Under the training component of the scheme, focus will be on the following:-

6.5.1 Training of farmers in good hygienic practices/ good manufacturing practices

6.5.2 Training of Dairy Personnel/milk tester (including Plant and Marketing staff)

6.5.3 Training on Quality management systems.

6.5.4 Training of DCS staff/ BMC/ chilling centre/ AMCU/ DPMCU on operations and quality management

6.6 Planning and Monitoring

Under the planning and monitoring components, 2% (maximum) will be earmarked to meet the cost of preparation of project proposal, monitoring including field level inspections, review meetings, documentations (success stories, outcomes, concurrent evaluations, impact evaluation etc.).

6.7 Research & Development

6.7.1 Assistance to dairies of 1 Lakh Litre capacity and above

6.7.2 For development on new products, process automation, cost effective technology in processing, bio-degradable packaging technology, A2-Milk route scheduling, traceability system development, milk situation for casting model, resource management including innovators and start-ups so that new innovation and research come up the sector.

7. FUNDING PATTERN AND FUND FLOW:

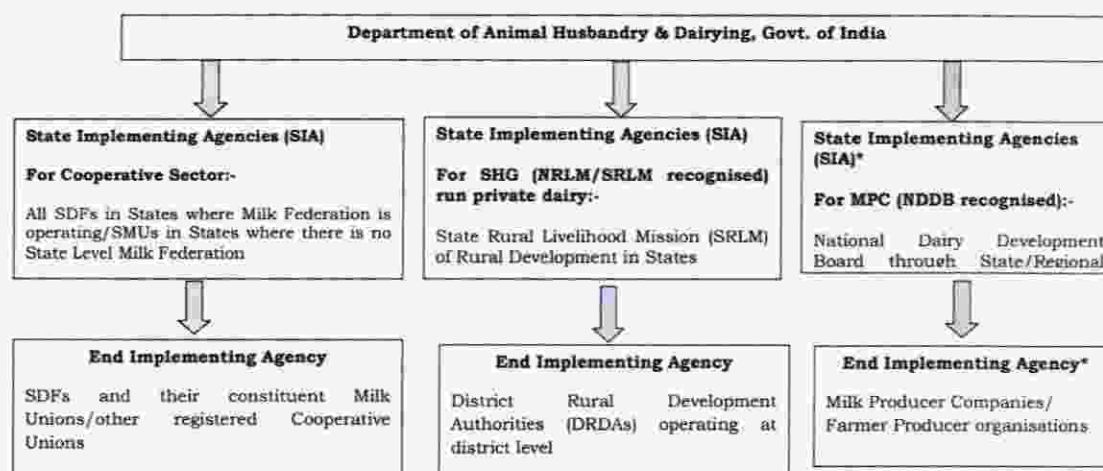
7.1 FUNDING PATTERN

- a) 60:40 cost sharing basis between GOI and State/State Implementing Agency (SIA)/End Implementing Agency(EIA)
- b) 90:10 cost sharing basis between GOI and State/SIA/EIA for NER States and Hilly States.
- c) The Central assistance for UTs will be 100%.
- d) In case of SIAs/EIAs, wherever applicable, is unable to provide its matching share, the concern SIA/EIA may source its matching share from State Government or any other loaning agency subject to fulfillment of the norms of the concerned assisting/loaning organizations. Such loaning organisations/institutions include State Government, NCDC, and Commercial banks etc.
- e) As regard funding support for Research & Development, ICT networking, training, awareness and planning & monitoring the assistance would be 100%.

7.2 FUND FLOW of Component-A of NPDD:

Under Component A of NPDD scheme instead of one State Nodal Agency, there will be three State Implementing Agencies for three different End Implementing Agencies. DAHD will release the fund to these SIAs based on the project approved by PSC and subsequent progress reported by State/SIA.

Fund Flow - Component A (Flow Chart)



State Nodal Agency-State Milk Federation/Unions for Cooperatives, SRLM for SHG run private dairies and State/Regional Office of NDDB for MPC/FPOs

8. IMPLEMENTATION MECHANISM

8.1 Central Project Steering Committee (CPSC)-

At the apex level, there will be a Central Project Steering Committee (CPSC), headed by Secretary (AHD), GoI, which will provide policy and strategic support to the project, monitor the progress of approved projects of NPDD, consider annual action plans, give policy directions and shall have the authority to re-appropriate component-wise fund requirement in approved programmes, change the eligibility conditions and other terms and conditions of the agreements between stakeholders, implementation arrangement and can change the composition of committees viz CPSC and PSC.

Secretary, DAHD	Chairperson
Financial Advisor, DAHD	Member
Animal Husbandry Commissioner, DAHD	Member
Deputy Director General (Animal Sciences), ICAR	Member
Principal Secretary/ Secretary, Department of Animal Husbandry and Dairy of States (one each from North, South, East and West)	Member
MDs of State Dairy Federations (one each from North, South, East and West)	Member
Chairman, NDDB or his nominee	Member
Managing Director/ Executive Director, NDDB	Member
Group Head (FPS), NDDB	Member
Director NDRI Karnal	Member
NRLM-Representative	Member
Representative from JICA as an observer	Member
Joint Secretary (CDD), DAHD	Member Secretary

8.2 Project Sanctioning Committee (PSC)

Project Sanctioning Committee (PSC) will be headed by Secretary AHD, GoI and will have the authority to sanction projects after appraisal by Dairy division of DAHD. PSC will have power for re-appropriation of funds within the components/within the approved sub projects, change norms and change unit cost of items of the project. PSC will be responsible for consideration of proposals received from/recommended by SLTMC. The PSC will meet quarterly or as frequently as necessary to ensure that proposals received through SLTMC are considered without unreasonable delay. The composition of PSC will be as under:

- I. Secretary, AHD, GoI –Chairman of the Committee
- II. Financial Advisor, DAHD
- III. Joint Secretary (Dairy Development), DAHD
- IV. Chairman, NDDB or his nominee not below the rank of Executive Director (ED)
- V. Executive Director / Group Head (FPS), NDDB
- VI. A representative from the concerned State Government and the State Dairy Federation would be an invitee while discussing the proposals pertaining to that particular state.
- VII. Representative from ICAR
- VIII. Representative from Rural Development
- IX. Representative from NRLM/concerned SRLM
- X. Deputy Commissioner (DD) / Assistant Commissioner(DD) , GoI – Member Convener

8.3 Programme Coordination Management Cell (PCMC)

A Programme Coordination Management Cell (PCMC) shall be created to provide Secretariat support to CPSC and PSC. Dairy Division (support by PCMC & PMA) will be responsible for analysis and timely placement of project proposals to PSC as well as for providing inputs to CPSC for successful implementation of the scheme as per the project objectives and deliverables.

8.4 State Level Technical Management Committee (SLTMC)

At the State level, there will be a State Level Technical Management Committee (SLTMC), which will be headed by Additional Chief Secretary/Principal Secretary/Secretary/Commissioner of the State, comprising representative of DAHD, SRLM, State Dairy Federation and NDDB as members for effective implementation and to have synergy among the similar dairy development programmes implemented in the State. SLTMC shall oversee state-level monitoring of the projects, the land

availability for village level institutions like, primary dairy societies and primary level cold chain infrastructure statutory requirements, co-ordination among SIAs/EIAs, policy support etc. SLTMC must ensure that there is no duplication of activities and project area in the States. The composition of SLTMC will be as follows:

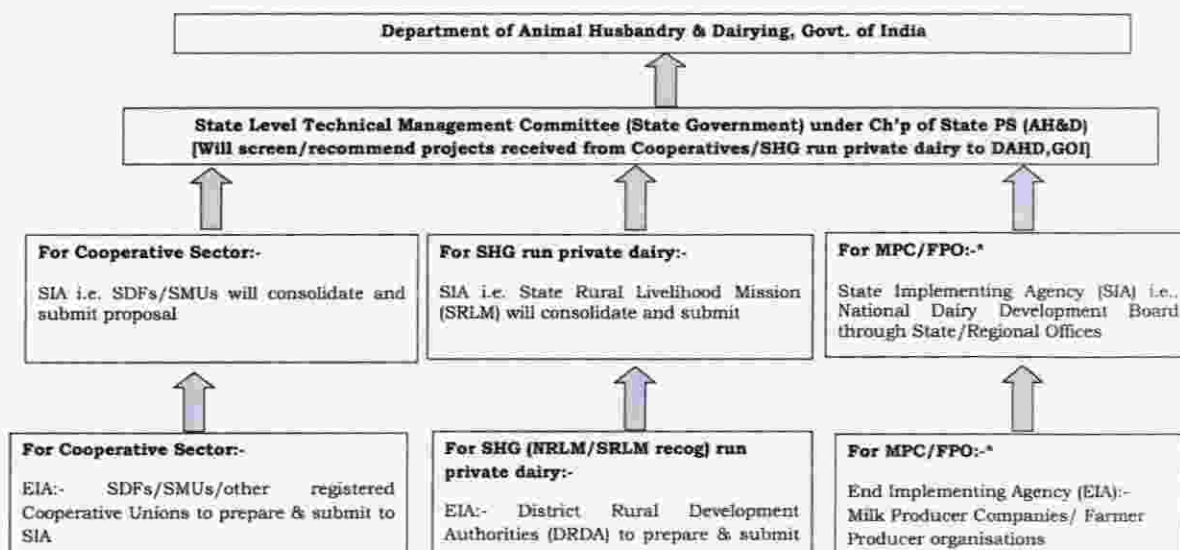
- i. Additional Chief Secretary/ Secretary/ Principal Secretary/Secretary/Commissioner of DADF of the State Government – Chairman of the Committee
- ii. Representatives from Dairy Development/ Animal Husbandry Department of the State Government.
- iii. Representatives from Department of Animal Husbandry and Dairying, Government of India.
- iv. Representative from Department of Finance and Planning of the State Government
- v. District Magistrate of Scheme Districts or his representative.
- vi. CEO, State Livestock Board
- vii. Representative of SRLM
- viii. Managing Director, State Dairy Federation/Milk Producer Company – Member convener (for projects under Component A)
- ix. Representative of NDDDB (nominated by Chairman, NDDDB), Member convener (for projects under Component B)

9. PROJECT PREPARATION AND SUBMISSION OF PROPOSAL

- a. A Situation Analysis shall be undertaken and shall include: a) Pre project Base line Survey by an independent Agency; b) funding under earlier programmes, c) role and capabilities of different players ; and d) area of operation etc.
- b. The Project/subproject Proposals under NPDD shall ensure optimal resource utilization and shall discourage avoidable expenditure and duplication/ overlap of activities.
- c. Special efforts must be made to re-commission idle equipment and equipment that is damaged but repairable. Proposal for fresh procurement shall be made only after making a realistic need assessment.
- d. The proposal may be prepared by furnishing requisite information as per prescribed factsheet and Annexure of the guideline. Guideline/ procedure for preparing a new project proposal along with prescribed annexure I to VI is **enclosed**.

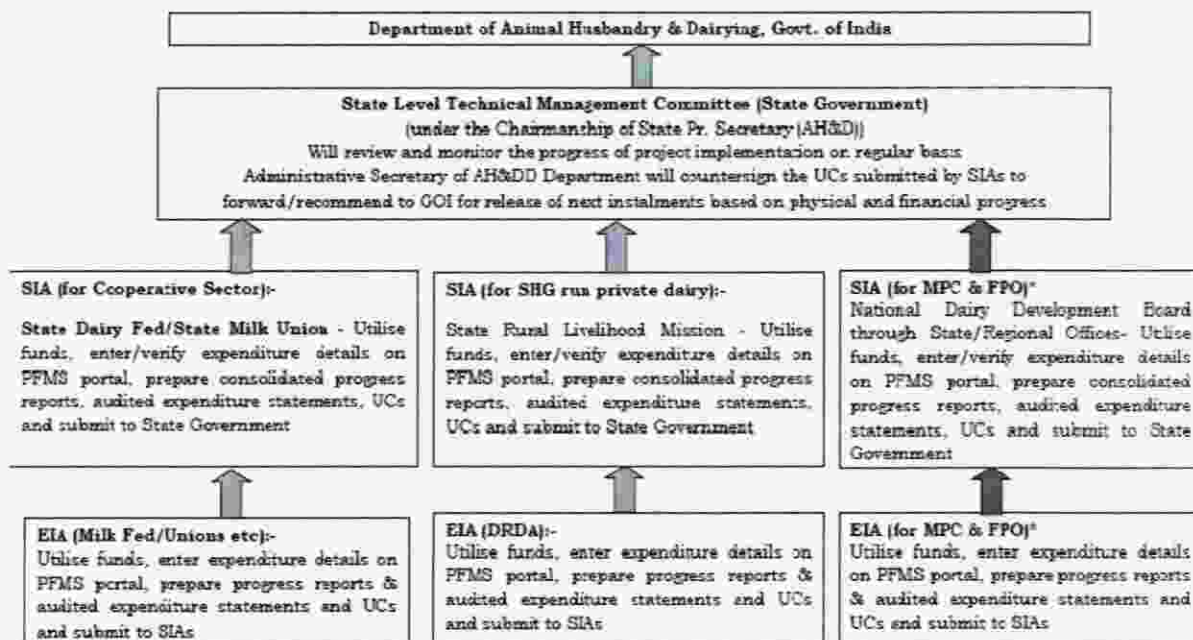
- e. The project proposals are to be planned to envisage dairy development in two to three adjoining districts comprehensively to make it technically feasible. At the time of formulating a proposal, the SIAs/EIAs shall see that projected dairy development activities are aligned with the activities of ongoing and approved dairy infrastructure projects in the project districts to ensure best utilisation of project resources in the developmental activities. The existing dairy infrastructure in two to three adjoining districts lying unutilised in the State should be brought under the ambit of baseline analysis during project planning for envisaging overall requirement of the State. State Level Technical Management Committee under the Chairmanship of State Principal Secretary/Administrative Secretary shall ensure that there is no duplication of project activities and project area in a project/a set of projects.
- f. The project proposal of SIA duly recommended by State Government/SLTMC should be submitted to DAHD for consideration.
- g. Soft copy of the Detailed Project Report should be submitted to DAHD timely, for appraisal and approval by the Project Sanctioning Committee.
- h. An indicative check list for preparing DPR under the scheme is as follows:-
 - i. DPR should include profile of the implementing agencies including end implementing agencies provided including financial condition, justification on component wise fund requirement provided.
 - ii. Annexure-I to VI filled up (district-wise and consolidated) as given in Departments website
 - iii. An undertaking indicating no duplication of funding and project activities with project under schemes of Central / State Government
 - iv. The cost of the equipments (including make, capacity, year etc.) and civil works (area and cost per unit) proposed needs to be adequately supported by the quotation/tender documents/copies of orders etc.
 - v. Status of implementation of earlier project in the district's proposed in the DPR and its physical and financial achievements against target along with closure reports and UCs.
 - vi. Balance sheet and Profit & Loss a/c for the year last financial year clearly indicating net and accumulated profit and loss.
 - vii. Implementing agency has mapped all the EIAs in the PFMS for implementation of the scheme
 - viii. Copy of FSSAI, ISO, HACCP etc certification of dairy plant

Project Preparation and Submission - Component A (Flow Chart)



*NDDB and MPCs/FPO as SIA and EIA was not included in EFC/CCEA therefore including them is subject to approval of Central Project Steering Committee of NPDD

UC Submission - Component A (Flow Chart)



*NDDB and MPCs/FPO as SIA and EIA was not included in EFC/CCEA therefore including them is subject to approval of Central Project Steering Committee of NPDD

10. Submission of Information:

SIA shall submit following information on Quarterly basis to DAHD (at the end of March, June, September & December):

- i) State-wise, Project-wise and component-wise progress report indicating total outlay, Grant assistance, SIA/EIA contribution, fund released to EIAs, fund utilized by EIAs, unspent balance etc.
- ii) Physical progress vis-à-vis approved physical parameters. Status of installation of BMC/Laboratory equipments etc.
- iii). Audited utilization certificate (duly authenticated by registered auditor and also countersigned by Administrative Secretary/Chairman of the State Level Technical Management Committee of concerned State Animal Husbandry and Dairying Department.
- iv) Audited report of expenditure vis-à-vis approved components/sub-components/items etc.
- vi) SC/ST/Women population covered under the project.

11. Ranking of States (Credit Ranking)

The project execution and implementation performance of States will be reviewed through State Level Technical Management Committee (SLTMC) meetings. Accordingly, States will be ranked based on their performance. The ranking may be deemed as credit ranking which will help States to apprise and seek subsequent financial assistance under projects on priority under the scheme.

12. Project Monitoring Agency (PMA)

For the purpose of overall monitoring of the approved projects/sub-projects under dairy development schemes through online project monitoring portal, PMA shall be put in place who shall be responsible to develop a Management Information System (MIS).

Functions of PMA:

- I. Monitoring of dairy projects as per approved project schedule
- II. Maintenance of MIS to provide all inputs for policy intervention and strategy finalisation by DAHD.
- III. Prepare financial/physical progress reports of various schemes on periodical basis as well as when required.

13. Project completion report:

On completion of project, the State Government would review the achievements made under the project vis-s-vis targets and would submit a project completion report indicating its achievements, setbacks etc alongwith a consolidated utilisation certificate (audited) and consolidated audited statement of expenditure, audited balance sheet of SIA/EIA/PIA etc.

FACT SHEET- NATIONAL PROGRAMME FOR DAIRY**DEVELOPMENT****STATE :****1.0 PROJECT SYNOPSIS**

- 1.1 Total Estimated Cost(Rs in Lakhs)
 1.2 Duration of Project
 1.3 District Covered
 Name of the State Implementing
 1.4 Agency

2.0 ITEMS							
			BASE YEAR		EOP TARGETS		
	Monitoring Parameters						
2.1	DCS Organised						
2.2	DCS Functional						
2.3	Farmers Members (000)						
2.4	Chilling Capacity (TLPD)						
2.4.1	Chilling Plant Capacity						
2.4.2	Bulk Milk Coolers						
2.5	Dairy Plant Capacity (TLPD)						
2.6	Daily Average Milk Procurement(TKgPD)						
2.7	Daily Average Milk Marketing(TKgPD)						

3.0 OUTLAY DETAILS		Amount In Lakhs				
	ITEMS		CAPITAL		RECURRING	TOTAL
3.1	Milk chilling facilities					
3.2	Milk Testing Laboratories					
3.3	Certification and Accreditation					
3.4	Information and Communication Technology Networking					
3.5	Training					
3.6	Awareness					
3.7	Planning and Monitoring					
3.8	Research and Development					
	Grand Total					
4.0 Financial Requirement		Amount In Lakh				
		Year wise phasing of Expenditure				
		1st year	2nd year	3rd year		Total
5.0	LOCATION OF EXISTING / PROPOSED BULK MILK COOLERS WITH CAPACITY					
6.0	LOCATION OF EXISTING / PROPOSED AMCU/DPMCU/EMAT					

7.0	LOCATION OF EXISTING / PROPOSED DAIRY PLANT LABS	
8.0	Unspent Balance as on 1st April of the current year:	
9.0	Utilisation Certificate as on 31st March of the current year:	

TLPD:---> THOUSAND LITRES PER
DAY

TKgPD:----> THOUSAND kg. PER
DAY

ANNEXURE-II

NATIONAL PROGRAMME FOR DAIRY DEVELOPMENT

ESTIMATES OF MILK PRODUCTION IN THE DISTRICT IDENTIFIED FOR DAIRY DEVELOPMENT PROJECT					
(YEAR -----)					
NAME OF DISTRICTS.....					
S.NO.	PARTICULARS				
1.0	NO. OF MILCH ANIMALS				
1.1	Cows				
1.2	Buffaloes				
2.0	MILK YIELD(HERD AVERAGE)				
2.1	Cows(Liters/day)				
2.2	Buffaloes(Liters/day)				
3.0	AVERAGE LACTATION LENGTH(DAYS)				
3.1	Cows				
3.2	Buffaloes				
4.0	AVERAGE DRY PERIOD(DAYS)				
4.1	Cows				
4.2	Buffaloes				
5.0	DAILY MILK PRODUCTION(MT)				
5.1	Cows				
5.2	Buffaloes				
5.3	Total				
6.0	ANNUAL MILK PRODUCTION(MT)				
6.1	COWS				
6.2	BUFFALOES				
6.3	TOTAL				

ANNEXURE-III

NATIONAL PROGRAMME FOR DAIRY DEVELOPMENT

Key Physical Targets and Monitoring Parameters of the Project

S.NO.	PARTICULARS	BASE YEAR	YEARS OF OPERATION		
			1st	2nd	3rd (EOP)
1.0	KEY PHYSICAL TARGETS				
1.1	NUMBER OF FUNCTIONAL DCS *				
1.2	PRODUCERS MEMBERS(000) *				
1.3	CHILLING CAPACITY(TLPD) #				
1.3.1	CHILLING PLANT CAPACITY (TLPD)				
1.3.2	BULK MILK COOLERS (TLPD)				
1.4	DAIRY PLANT CAPACITY(TLPD) #				
1.5	AVERAGE DAILY MILK PROCUREMENT(TKgPD)				
1.6	AVERAGE DAILY MILK MARKETING(TLPD) **				
1.7	NUMBER OF VILLAGE LEVEL LAB STRENGTHENED				
1.7.1	AUTOMATIC MILK COLLECTION UNITS				
1.7.2	DATA PROCESSING AND MILK COLLECTION UNIT				
1.7.3	ELECTRONIC ADULTERATION TESTING MACHINE				
1.8	NUMBER OF STATE/DISTRICT LEVEL LAB STRENGTHENED				
1.9	AVERAGE NO. OF SAMPLES TESTED FOR MILK ADULTERATION				
1.10	AVERAGE METHYLENE BLUE REDUCTION TIME				
1.11	NO. OF VILLAGE COVERED				
2.0	MONITORING PARAMETER				
2.1	MEMBERS PER FUNCTIONAL DCS				
2.2	AVERAGE PROCUREMENT PER MEMBER(LPD)				
2.3	AVERAGE PROCUREMENT PER DCS(LPD)				

IN AND.....DISTRICTS OF
 * ---->STATE
 ** ----> IN.....AND.....TOWNS.
 PLEASE INDICATE THE LOCATION OF THE PLANT ALSO VIS-
 # ----> À-VIS THEIR CAPACITIES.
 PLEASE ENCLOSE A MAP SHOWING THE LOCATION & CAPACITIES OF
 PLANTS ON MILK ROUTES.

Annexure-IV

Proposal for EMAT/AMCU/DPMCU Installation under NPDD

State: _____

Name of State Implementing

Agency: _____

Districts proposed to be covered: _____

Physical & Financial targets of the project:-

S. No.	Name of EIA/Milk Union	Name of District		Name of the Taluka/ Block			Total number of DCS/SHG	No. of DCS/SHG in which EMAT/AMCU/DPMCU is installed			No. of DCS/SHG where EMAT/AMCU/DPMCU not installed (Gap)	No. of DCS/SHG Proposed for EMAT/AMCU/DPMCU installation			
								EMAT	AMCU	DPMCU		EMAT	AMCU	DPMCU	Total
1		1.1		1.1.1											
				1.1.2											
		1.2		1.2.1											
				1.2.2											
		Sub-total													
2		2.1		2.1.1											
				2.1.2											
		2.2		2.2.1											
				2.2.2											
		Sub-total													
		Grand Total													

*Detailed Specifications and component wise cost breakup needs to be provided separately in DPR

Annexure-IV (Contd/..)

List of Dairy Cooperative Societies proposed to be covered (Separate Sheet for each district)

S. No.	Name of District	Name of Taluka/Block	Name of DCS/SHG proposed for EMAT/AMCU/ DPMCU installation	Is DCS/SHG is registered/ Unregistered	EMAT/AMCU /DPMCU proposed to be installed	Average Daily Milk Procurement (LPD) (2020-21)	No. of Milk Producer enrolled with DCS/SHG	Present milk testing facility available at the proposed DCS

Annexure-V

Proposal for BMC Installation under NPDD

State: _____

Name of State Implementing Agency: _____

Districts proposed to be covered: _____

Physical & Financial targets of the project:-

S. No.	Name of EIA/Milk Union	Name of District		Name of the Taluka/Block			Total number of DCS	No. of DCS/SHG in which BMC is installed#					No. of DCS/SHG where BMC not installed (Gap)	No. of DCS/SHG Proposed for BMC installation						
								No.	Capacity (KL)					Total Capacity (KL)	No.	Capacity (KL)				Total Capacity (KL)
									0.5	1	2	5				0.5	1	2	5	
1		1.1		1.1.1																
				1.1.2																
		1.2		1.2.1																
				1.2.2																
		Sub-total																		
2		2.1		2.1.1																
				2.1.2																
		2.2		2.2.1																
				2.2.2																
		Sub-total																		
		Grand Total																		

Separate Sheet providing list of DCS/SHG where BMC is installed with capacity and Present level of milk procurement.

*Detailed Specifications and component wise cost breakup needs to be provided separately in DPR

Annexure-V (Contd/..)

**List of Dairy Cooperative Societies proposed to be covered
(Separate Sheet for each district)**

S. No.	Name of District	Name of Taluka/Block	Name of DCS/SHG proposed for BMC installation	Is DCS/SHG proposed for BMC is registered/ Unregistered	Name of Cluster DCS/SHG associated with proposed BMC DCS	Average Daily Milk Procurement (LPD) (2020-21) at Cluster DCS/SHG and BMC DCS	No. of Milk Producer enrolled with Cluster DCS/SHG& BMC DCS	Present milk testing facility available at the Cluster DCS/SHG and BMC DCS/SHG

NATIONAL PROGRAMME FOR DAIRY DEVELOPMENT

Estimated Cost of the**Dairy Project****Name of the District:-****(Rs. in Lakh)**

				Years of Implementation			Total Cost
				1st	2nd	3rd	
	COMPONENT-WISE ALLOCATIONS	Physical Target	Unit price/cost				
		EOP					
1.0	Milk Chilling facilities (at village/block/district level)						
	Capital Expenditure						
1.1	Civil works, Equipment for bulk milk coolers						
1.2	Equipment for bulk milk coolers						
	Sub-total (Capital)						
2	Construction/Establishment of Milk and Milk Product Testing Laboratories						
2.1	Capital Expenditure						
2.1.1	DCS/village level laboratories/ at Bulk Milk Cooler (BMC) centers						
2.1.1.1	Data Processing and Milk Collection Units						
2.1.1.2	Automatic Milk Collection Unit						
2.1.1.3	Electronic Milk Adulteration Testing Machine						
2.1.1.4	Purchase of laboratory furniture						
2.1.1.5	Any other equipment (Details to be provided separately)						
2.1.2	Dairy Plant Level/State Level						
2.1.2.1	Purchase of laboratory equipments (for chemical/microbial (only for union/state level) analysis of milk and milk products) (Details to be provided separately)						

2.1.2.2	System for quality assurance (HACCP/ISO) including equipment/computer hardware and software etc						
	Sub-total (Capital)						
3	Certification and Accreditation						
3.1	Recurring Expenditure						
3.1.1	Accreditation and certification of dairy establishments under HACCP/ISO						
	Sub-total (Recurring)						
4	Information and Communication Technology Networking						
4.1	Capital Expenditure						
4.1.1	Purchase of Computers/handheld terminals with accessories						
4.1.2	Purchase of Server System						
4.1.3	Purchase/installation of Software systems (block chain, SAP, ERP for developing traceability, quality network etc)						
	Sub-total (Capital)						
5	Training						
5.1	Recurring Expenditure						
5.1.1	Training of farmers in good hygienic practices/ good manufacturing practices						
5.1.2	Training of Dairy Personnel/milk tester (including Plant and Marketing staff)						
5.1.3	Training on Quality management systems.						
5.1.4	Training of DCS staff/ BMC/ chilling centre/ AMCU/ DPMCU on operations and quality management						
	Sub-total (Recurring)						
6	Awareness Generation						
6.1	Recurring Expenditure						

7	Planning and Monitoring						
	Recurring Expenditure						
7.1	Pre-project Baseline survey (by independent agency) and preparation of project report						
7.2	Concurrent evaluation and in-depth independent evaluation of the project and Post- project impact assessment survey (including success stories, outcomes etc.)						
7.3	Field level inspections, review meetings etc.						
	Sub-total (Recurring)						
8	Research and Development						
	Total Capital Expenditure						
	Total Recurring Expenditure						
	Grand Total						

COMPONENT B

A. Background:

- I. In consonance with the mandate of the Government for the doubling the farmers income, this Department had initiated Japan International Cooperation Agency (JICA) ODA Loan assistance proposal for "Dairying through Cooperatives" (Also Known as "Project for Dairy Development in JICA's Document")
- II. The scheme is envisaged with a total Outlay of Rs. 1568.28 crore in the form of Loan of Rs.924.56 crore (JPY 14,978 million) by JICA and remaining amount of Rs.475.54 crore as Grant by Govt. of India and Participating Institutes' share of Rs. 168.18 crore.
- III. A tripartite agreement namely Minutes of Discussion (MOD) has been signed on pilot project by DAHD,GOI, JICA and NDDDB on 24.09.2018.
- IV. Exchange of Note and Loan Agreement for project for Dairy Development have been signed on 21.12.2018 between Department of Economic Affairs (DEA), Government of India and Government of Japan and JICA respectively.

B. Objectives:

To increase sales of milk and dairy products by increasing farmers' access to organised market, upgrading dairy processing facilities and marketing infrastructure and enhancing the capacity of producer owned institutions, thereby contributing to increase in return to milk producers in the project area.

C. Project Components:

- I. Strengthening Milk Procurement Infrastructure
- II. Milk processing facilities and manufacturing facilities (milk & milk products and cattle feed)
- III. Support for Marketing infrastructure
- IV. Support for ICT Infrastructure
- V. Productivity Enhancement
- VI. Project Monitoring and Studies
- VII. Training and capacity development

D. Project Area:

The states namely, Bihar and Uttar Pradesh shall be covered on priority. However, any addition of state shall be in compliance to the loan agreement between Government of India and Government of Japan.

As per loan agreement the location for projects is as below:

“Two States selected from following States. Number of States is expandable up to five States. Bihar, Uttar Pradesh, Madhya Pradesh, West Bengal, Andhra Pradesh, Rajasthan, Telangana, Uttarakhand, Punjab”

The scheme will cover all the districts in the State of Uttar Pradesh and Bihar. The priority will be given to socially and economically backward districts having dairying potential (includes all 21 aspirational districts).

E. Eligible Participating Institutions (PIs)/ Producer owned Institutions (POIs)

Milk Unions/ Multi-state Milk Cooperatives/ State Dairy Federations/ Milk Producer Companies

F. Eligibility criteria

(i) Eligibility criteria for PIs Institutional/ Governance Criteria

1. PIs should have a duly constituted Governing Body such as Board of Directors/Management Committee as applicable to the legal form of the PI.
2. PIs should have a full time Chief Executive/Managing Director (or equivalent) and adequate number of qualified technical and managerial personnel at key positions.
3. PIs should be willing to amend Bye-laws.
4. PIs should have fixed/ Undisturbed tenure for senior/ key management personnel including Managing Director/Chief Executive.
5. Board of the PI should nominate one expert each in the field of finance, Dairy Technology and marketing as independent directors.

(ii) Financial Criteria

(i) 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.
2. PIs should not have any over-dues to any financial institution.
3. PI should not be in a default to any bank/financial institution.
4. PI needs to contribute its share in the Project. However, in case PI does not have adequate resources to contribute its share, State Government may offer necessary grant.

(ii) Additional Financial Criteria (applicable for PIs availing loan under the project)

1. PI should have positive net worth.
2. All outstanding dues to producer members should not exceed four payment periods.
3. The financial returns of the project: Project will have uniform rate of Return on Investment (ROI) of 10%(minimum) and Debt Service Coverage Ratio (DSCR) of 1.5 times (minimum) for all sub projects.
4. The loan should 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 shortfall, State Government guarantee will be required.

(iii) Technical Criteria : Component wise

A. Strengthening of Milk Procurement Infrastructure:

1. PI should have its own milk processing facilities or have a forward linkage with an existing milk processing facility.
2. PI should have the land/ premises for setting up DCS building and housing Bulk Milk Coolers free from any encumbrances.
3. Preference will be given to PIs that already have in place IT based reporting and monitoring systems.
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.

B. Strengthening of Processing Infrastructure

1. PI should have required environmental/ statutory clearances for setting up of plants.
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 NDDDB would have to be obtained.

C. Strengthening of Marketing Infrastructure

1. PI should have own milk processing facility and marketing network for sale of liquid milk & milk products.

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.
2. PI should have competent manpower to manage ICT Infrastructure and applications.

E. Productivity Enhancement

E1- Sub Component:- Nutritional Interventions for PE

1. PIs which will identify/recruit technical manpower exclusively for the project will be considered.
2. PIs must have their 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.
3. Preference will be given to the PIs which have implemented animal nutrition activities (Ration Balancing Programme (RBP)/Fodder Development) under NDP I successfully.
4. PIs which will create corpus from the beginning for sustainability of the activity, will be given preference.

E2 Sub Component :- Fodder Development

E2.1 - Fodder seed production and distribution/fodder conservation and green fodder enhancement and fodder technology demonstration

1. PIs 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.
2. PIs should have capacity to formulate and implement a sound plan for demonstrations.
3. Preference will be given to PIs that have prior experience in this area.

E2.2 - Crop residue management

1. PIs must have the capacity to formulate and implement a sound plan for crop residue enrichment and densification.
2. Preference will be given to PIs that have prior experience in this area.
3. PIs should have land (free of encumbrances) for setting up the units.
4. Availability of surplus crop residues in the operational area of PI in large quantity from cereal /cash /fodder crops.
5. PIs should have network of village level farmers organisations such as Village Dairy Cooperative Societies, Milk Producers' Institutions and SHGs for implementation work.

G. DURATION OF THE PROJECT:

The scheme will be implemented during 2021-22 to 2025-26 and will continue till 2027-28.

H. Funding Pattern and fund flow:

The fund under the scheme is classified into loan component and grant component. While the loan component has been signed with Government of Japan by Government of India (D/O Economic Affairs) on 21st December 2018, the grant component shall be funded under on-going programme 'National Dairy Development Programme' (NPDD).

a) Funding Pattern:

- i. Strengthening of processing infrastructure component and feed manufacturing Facilities will be funded as interest bearing loan (90% of the project cost as Loan and rest 10% as State Government/POI's contribution).
- ii. Building for village level Producers' institution and capital cost on BMC and AMCU/DPMCU shall be funded as 50% ODA loan and 50% Grant-in-aid,
- iii. The activities such as Productivity Enhancement, milk collection accessories, all milk testing equipment at village level, Dairy Cooperative Society (DCS) establishment will be funded as 90% grant-in-aid and 10% as State Government/POI's contribution.
- iv. ICT and Marketing infrastructure shall be funded as 80% ODA Loan and 20% Grant-in-aid by Government of India
- v. Project Management & Learning shall be 100% Grant basis. 90% of the fund to be transferred to NDDDB for conducting trainings, overseas exposure, concurrent evaluation, impact studies, appointment of auditors for audit of accounts etc. The rest 10% of the fund shall be retained at DAHD for creating and managing PCMC-cell at DAHD in the form of suitable budget provision under the appropriate head of scheme.

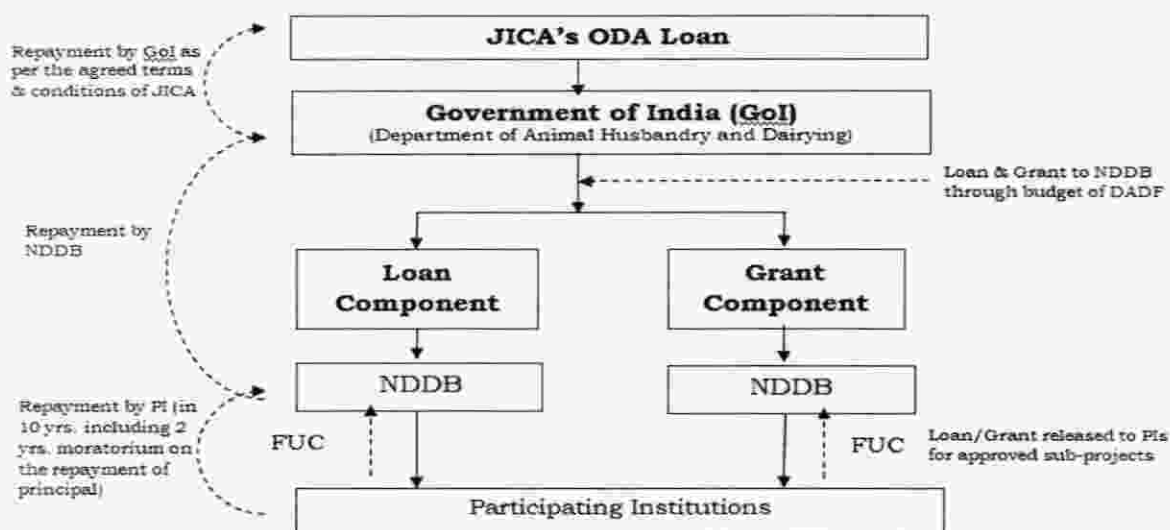
b) Fund Flow mechanism of Component-B (JICA) of NPDD:

The Government of India will bear the hedging cost arising out of currency difference in Yen and Rupee. As per Government Finance Rules and JICA procedure, the ODA loan is to be transferred by JICA in two/three tranches to the consolidated fund of India with RBI. The Budget Division, D/O Economic Affairs (DEA) will keep suitable budget provision based on the approved programme and as proposed by DAHD year on year basis. Subsequently, D/O Expenditure will allocate budget to DAHD under the scheme. DAHD in turn will release the fund to NDDDB based on the action plan approved by CPSC and progress made under the programme. Preferably, such releases shall be made in two instalments in a financial year.

GoI will receive the ODA loan from JICA at about 0.85% p.a. and transfer fund to National Dairy Development Board (NDDDB) for onward disbursement to the Producer owned Institutions (POIs) @ 1.5 % p.a. NDDDB shall retain a margin of 0.5-0.65% p.a. as cost of fund management and loan default risk. The period of reimbursement to

JICA is 20 years by GOI (Repayment period of JICA ODA loan is 15 years with 5 years grace period). The period of reimbursement by Producer owned organisation (Cooperatives and Producer Companies) to NDDB shall be maximum 10 years, of which first 2 years (maximum) shall be moratorium on payment of principal amount.

Fund Flow arrangement



I. JICA Procurement Guideline with Japanese ODA Loans

Procurement of goods and services covered by Japanese ODA Loans should be implemented in accordance with "Guidelines for Procurement under Japanese ODA Loans", dated April 2012. Employment of consultants should be implemented in accordance with "Guidelines for Employment of Consultants under Japanese ODA Loans", dated April 2012. "Principles of Procurement under the Project"

J. Institutional Arrangement:

NPDD	Component B
	Cooperative Sector
Recommending authority (for submission of proposals)	Implementation and Monitoring Cell (IMC) of National Dairy Development Board (NDDB)
State Implementing Agencies/ Implementing Agencies	NDDB - Nodal agency for project implementation and monitoring

End Implementing Agencies/PIs/POs	All State Dairy Federations and their constituent District/Taluka Level Milk Unions and farmer producer organisations, Government dairy/other registered Cooperative Unions (like dairy cooperatives registered under Multi State Coop. Act and Mutually Aided Cooperative Society Act etc.).
Village level Participating Agencies	All dairy cooperative societies and other agencies associated or affiliated to above SIAs or EIAs like village level NGOs, SHGs, Universities, Colleges, ICAR Institutes etc.

(a) Implementation Mechanism

The project will be implemented through National Dairy Development Board (NDDB) who in turn will implement it through the Producer oriented Institutions (POIs) such as State Dairy Federation, Multi State Milk Cooperatives, District/Taluka Milk Unions and Milk Producer Companies.

(b) Monitoring and policy decisions

(i) Central Project Steering Committee (CPSC)-

At the apex level, there will be a Central Project Steering Committee (CPSC), headed by Secretary (AHD), GoI, which will provide policy and strategic support to the project, monitor the progress of approved projects of NPDD component B, consider annual action plans, give policy directions and shall have the authority to re-appropriate component-wise fund requirement in approved programmes, change the eligibility conditions and other terms & conditions of the agreements between stakeholders, implementation arrangement and can change the composition of committees viz. CPSC, PSC and IMC.

Secretary, DAHD	Chairperson
Financial Advisor, DAHD	Member
Animal Husbandry Commissioner, DAHD	Member
Deputy Director General (Animal Sciences), ICAR	Member
Principal Secretary/ Secretary, Department of Animal Husbandry and Dairy of States (one each from North, South, East and West)	Member
MDs of State Dairy Federations (one each from North, South, East and West)	Member
Chairman, NDDB or his nominee	Member
Managing Director/ Executive Director, NDDB	Member
Group Head (FPS), NDDB	Member

Director NDRI Karnal	Member
NRLM-Representative	Member
Representative from JICA as an observer	Member
Joint Secretary (CDD), DAHD	Member Secretary

(ii) Project Sanctioning Committee (PSC)

Project Sanctioning Committee (PSC) will be headed by Secretary AHD, GoI and will have the authority to sanction projects, appraised and recommended by (IMC), NDDB for Component B. PSC will have power for re-appropriation of funds within the components, change norms and change unit cost of items of the project. PSC will also have power to re-appropriate funds within the approved sub projects of same POIs/IAs and decide the loan security mechanism for sub- projects (w.r.t component B). The PSC will meet quarterly or as frequently as necessary to ensure that proposals received from POIs/IAs are considered without unreasonable delay. The composition of PSC will be as under:

- I. Secretary, AHD, GoI –Chairman of the Committee
- II. Financial Advisor, DAHD
- III. Joint Secretary (Dairy Development), DAHD
- IV. Chairman, NDDB or his nominee not below the rank of Executive Director (ED)
- V. Executive Director / Group Head (FPS), NDDB
- VI. A representative from the concerned State Government and the State Dairy Federation would be an invitee while discussing the proposals pertaining to that particular state.
- VII. Representative from ICAR
- VIII. Representative from Rural Development
- IX. Representative from NRLM/concerned SRLM
- X. Deputy Commissioner (DD) / Assistant Commissioner(DD) , GoI – Member Convener

(iii) Programme Coordination Management Cell (PCMC)

A Programme Coordination Management Cell (PCMC) shall be created to provide Secretariat support to CPSC and PSC. PCMC will be responsible for analysis and placement of projects sent by IMC of NDDB to PSC, as well as for providing inputs to CPSC for successful implementation of the project as per the objectives. PCMC shall be headed by Joint Secretary (CDD). Project Management Consultant (PMC) under the Project Consultancy component will assist PCMC and IMC in the implementation of the project activities.

(iv) State Level Technical Management Committee (SLTMC)

At the State level, there will be a State Level Technical Management Committee (SLTMC), which will be headed by Additional Chief Secretary/Principal Secretary/Secretary/Commissioner of the State, comprising representative of DAHD, SRLM, State Dairy Federation and NDDDB as members for effective implementation and to have synergy among the similar dairy development programmes implemented in the State. SLTMC shall oversee state-level monitoring of the projects, the land availability for village level institutions like, primary dairy societies, bulk milk cooling centres and cattle feed plants, statutory requirements, co-ordination among PIs and NDDDB, policy support etc. All PoIs/SIAs shall be the member of the committee. For the SHG-run private dairies/producer companies, project proposals shall be submitted to the concerned SLTMC for recommending the same to Govt. of India. The composition of SLTMC will be as follows:

- i. Additional Chief Secretary/ Principal Secretary/Secretary/Commissioner of DADF of the State Government – Chairman of the Committee
- ii. Representatives from Dairy Development/ Animal Husbandry Department of the State Government.
- iii. Representatives from Department of Animal Husbandry and Dairying, Government of India.
- iv. Representative from Department of Finance and Planning of the State Government
- v. District Magistrate of Scheme Districts or his representative.
- vi. CEO, State Livestock Board
- vii. Representative of SRLM
- viii. Managing Director, State Dairy Federation/Milk Producer Company – Member convener (for projects under Component A)
- ix. Representative of NDDDB (nominated by Chairman, NDDDB), Member convener (for projects under Component B)

(v) Implementation & Monitoring Cell (IMC)

An Implementation and Monitoring Cell (IMC) located at NDDDB, Anand, will appraise the project proposals and screen them based on merit and manage the implementation and monitoring of day-to-day project activities. IMC will forward the appraised project to PSC for consideration. IMC will be supported by various Technical Groups within NDDDB during implementation of the scheme and PMC. IMC will be headed by Managing Director/ Executive Director, NDDDB. IMC will

conduct due diligence with respect to re-appropriate the funds within the approved sub-components of the approved project and the securitization arrangements of loan component for sub-projects subject to concurrence of PSC. IMC shall identify necessary changes required in the programme for effective implementation and prepare policy proposals for decision of CPSC. It will also prepare annual action plan, comprehensive loan drawl plan (quarterly/half yearly/annually) as per reimbursement procedure as mentioned in schedule 6 and technical appraisal note/ document required for smooth implementation of the programme for consideration of CPSC.

K. PROJECT PREPARATION AND SUBMISSION OF PROPOSAL

- I. NDDB will conduct workshops for sensitization of the Project. Along with the workshop, training for strategic management, business planning and marketing strategy will be provided to potential Participating Institutions (PI).
- II. PI/PoIs with support from NDDB will prepare and submit sub-project proposal to IMC and SLTMC. IMC will conduct appraisal with support from NDDB's technical and functional groups. SLTMC after screening the sub-project will forward recommendation to GoI. In case PIs/PoIs need guarantee and/or grant to fill viability gap, SLTMC should send a commitment letter from respective state government along with recommendation to GoI. Once technical and financial assessment of the proposal is complete by IMC, a 'Note for approval' will be prepared and submitted to PSC for approval.
- III. In case environmental clearance/permissions are required to obtain, NDDB will scrutinize the compliance and inform PIs. PIs shall obtain those clearances prior to commencement of any project activities.
- IV. In order to have review from JICA, after sanctioning of sub-projects by PSC, IMC shall submit the Financing Request Format, Screening Format of each sub-project as per JICA Guidelines for Environmental and Social Considerations (April 2010) with IMC's Note for Approval.
- V. After obtaining all the required clearance, NDDB and PIs will sign Project Agreement. PIs will submit Fund Utilization Certificate (FUC) to IMC on monthly basis, and accordingly, NDDB will disburse the fund to PIs. While the sub-project will comprise

different components, NDDDB will manage and disburse fund of loan and grant separately.

- VI. IMC will monitor the progress of sub-projects including conducting field visit. IMC shall report the progress of sub-projects to DAHD, GoI with Copy to JICA.
- VII. The Project/subproject Proposals under Dairying through Cooperatives (DTC) JICA assisted project shall ensure optimal resource utilization and shall discourage avoidable expenditure and duplication/ overlap of activities.
- VIII. Special efforts must be made to re-commission idle equipment and equipment that is damaged but repairable. A list indicating condemned equipment's needs to be prepared and submitted as a part of the project. Proposal for fresh procurement shall be made only after making a realistic need assessment.
- IX. The DPR for individual projects shall be prepared based on the model Sub Project Proposal (SPP) annexed. The detailed Guideline/ procedure for preparing of a new project proposal along with model sub-project plan is available on DAHD/NDDDB website.
- X. The proposal shall include copies of FSSAI registration certificate for plant, process certification from BIS, balance sheet and a copy of income tax return of concerned POI of last financial year in the DPR.
- XI. The project proposal of PIs/PoIs duly recommended by SLTMC should be submitted to NDDDB with a copy endorsed to DAHD for consideration.
- XII. NDDDB shall submit DPR and appraisal note of all proposals received under the scheme to DAHD.
- XIII. IMC will monitor the progress of sub-projects including conducting field visit. IMC shall report the progress of sub-projects to DAHD.

L. Submission of Information:

POI shall submit following information on Quarterly basis to NDDDB with copy endorsed to DAHD (at the end of March, June, September & December):

- i) Project-wise and component-wise progress report indicating total outlay, loan and Grant assistance, PI/PoIs contribution, fund released (loan & grant) to PIs/PoIs, fund utilized by PI, unspent balance etc

ii) Physical progress vis-à-vis key parameters vis-a-vis approved physical parameters. Status of tender/ installation of dairy plant/BMC/ Cold storages/ Laboratory equipment's etc.

iii). Audited utilization certificate (duly authenticated by registered auditor and also countersigned by Administrative Secretary of concerned Department of State Government) to NDDB. NDDB shall propose release of fund based on the utilization and also for new proposal. In case of a new proposal, the progress of ongoing proposals in the state needs also be submitted.

iv) Audited report of expenditure vis-à-vis approved components/sub-components/items etc.

vi) SC/ST/Women population covered under the project.

M. Project completion report:

On completion a project, the SLTMC would review the achievements made under the project vis-a-vis targets and would submit a project completion report indicating its achievements, setbacks, operational status of Dairy plant/ BMC etc. alongwith a consolidated utilisation certificate (audited) and consolidated audited statement of expenditure, audited balance sheet of PoIs/PIs etc.

NDDB will be put up the following logo on at all facilities introduced under JICA's funding:



Model Sub Project Plan (SPP)

Under the project ‘Dairying through Cooperatives – Key to sustainable livelihood’

(Referred by JICA as “Project for Dairy Development”)

XYZ Cooperative Milk Union

June 2021

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Project at a Glance

Participating Institution (PI) : XYZ Milk Union

I. 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 on the date of applying for loan.	No default to any financial institution
4	PI needs to contribute its share in the project/State Government may offer necessary grant to cover PI's contribution.	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 preferably be minimum 1.5 times of the loan amount in terms of mortgage of immovable assets and hypothecation of movable assets. State Government guarantee shall give commitment to pay the dues in case of any shortfall.	Collateral security ____ times the loan amount
II	Institutional/ Governance	
1	PI has 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 has a full time Chief Executive/Managing Director (or equivalent) and adequate number of qualified technical and managerial personnel at key positions.	Yes. The Union is headed by MD, having adequate technical and managerial personnel
3	PI is willing to amend Bye-laws in line with the model Bye-laws developed and circulated by NDDB	Yes
4	Fixed/ Undisturbed tenure for senior/ key management personnel including Managing Director/Chief Executive of PI. The PI needs to take consent of NDDB before transferring the Managing Director/Chief Executive.	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 of Milk Procurement Infrastructure:	

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1	PI should have its own milk processing facilities or have a forward linkage with an existing milk processing facility.	Yes
2	PI/DCS should have the land/ premises for setting up the Bulk Milk Coolers/construction of building for DCS or BMC 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	Strengthening of Processing Infrastructure:	
1	PI should have required environmental/ statutory clearances for setting up of plants.	Yes (encumbrance free land) Milk Union 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	Strengthening of Marketing Infrastructure:	
1	PI should have own/leased 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) and mineral mixture, 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 and having 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

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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 area in large quantity from cereal /cash /fodder crops.	Yes
5	Preference of network of village level farmers organisations such as village Dairy Cooperative Societies, Milk Producers' Institutions and Self Help Groups for implementation work	Yes

*Preference would be given to PI meeting this criteria

II. General Information about the PI

1	Legal form of participating Institution	:	Milk Cooperative (registered under State Co-operative Societies Act, __ <i>(year)</i> __)
2	Year of Registration	:	
3	Area of Operation (Districts/Talukas)	:	ABC and KLM districts
4	Name of Managing Director	:	Smt./ Shri. _____

III. 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					

IV. Existing status and Future Projections

a. Coverage of Milk Union

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						

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b. 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						

c. 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_____							

d. 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						

V. Dairy Infrastructure of the PI

a. 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: _____		

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b. 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_____			

c. 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_____)

d. 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			NA
	2 KL BMC			
	3 KL BMC			NA
	5 KL BMC			NA
	10 KL BMC			NA
ii	Chilling Centres			NA
	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)			

VI. 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)	TKgP D							
B	Strengthening of Processing Infrastructure								
B1	Milk Processing Capacity to be created	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 proces sed							
	Reduction in usage of fossil fuels (in case of refurbishment of plant)	Litres / litre of milk proces sed							
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							

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No.	Project Performance Indicators	Unit	Base-line figure (Yr ____)	Incremental Targets					EOP (Cumulative Targets)
				Yr 1 (____)	Yr 2 (____)	Yr 3 (____)	Yr 4 (____)	Yr 5 (____)	
C	Strengthening of 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	%							
D	Support for ICT								
D1	DCS to be covered under AMCS	Nos.							
E	Productivity Enhancement – through nutritional interventions								
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 Building								
F1	Persons to be trained/capacity developed	Nos.							
	Officers	Nos.							
	Staff	Nos.							
	Farmers	Nos.							

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VII. 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	Strengthening Processing Infrastructure						
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 – <i>through nutritional interventions</i>						
F	Training and Capacity Building						
	Total						
	Grant (GoI)						
	Loan						
	PI's/State's Contribution						

VIII. 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

1. Introduction

1.1. Overview of Operational Area of the Union

XYZ Cooperative Milk Union was established in the year _____. The area of operation of the Union is two districts of the State, namely _____ABC_____ and _____KLM_____. Detail of profile of operational area of Milk Union is given in the table below:

Table 1: Details of Operational Area of the Milk Union

No.	Particulars		Unit	Operational area of XYZ Milk Union
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	

1.2. Past performance of the Union

- Milk procurement network:

As on March 2021, the Union 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 Union is increasing at a CAGR of _____% and _____% respectively over past 5 years. Details of past performance of the Union are given in the Table below:

Table 2: Details of Past Performance of the Milk Union

No.	Particulars	Unit	Past performance					CAGR
			16-17	17-18	18-19	19-20	20-21	
1	Organised DCS/MPI	Nos.						
2	Functional DCS/MPI	Nos.						
3	Villages covered by Functional DCS/MPI	Nos.						
4	Producer Members (Functional DCS/MPI)	'000 Nos.						

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No.	Particulars	Unit	Past performance					CAGR
			16-17	17-18	18-19	19-20	20-21	
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 Union is as given below:

Table 4: Chilling and testing infrastructure with the Union

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						

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No.	Particulars	Unit	Past performance				
			16-17	17-18	18-19	19-20	20-21
	- 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 Union 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 Union 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 Union

No.	Particulars	Unit	Capacity
1	Milk Processing Plant	TLPD	

No.	Particulars	Unit	Capacity
2	Raw milk silos	KL	
3	Pasteurised milk silos	KL	
4	Pasteuriser	KLPH	
5	Homogenizer	KLPH	
6	Cream separator	KLPH	

The Union manufactures milk products like butter, ghee, curd, lassi, flavoured milk, _____, _____ and _____ in the existing plant.

Table 8: Value Added Products Plant Capacity of the Union

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 Union's Operational Area

No.	Particulars	Unit	Figures
1	Cities covered for marketing		<i>(name of cities)</i>
	Milk Demand	TKgPD	
2	Liquid Milk Sale	TLPD	
	XYZ Milk Union	TLPD	
	Private Players 1____	TLPD	
	Private Players 2____	TLPD	
	Unorganised Sector	TLPD	

The Union 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 Union is given below:

Table 10: Details of sale of liquid milk & value added products by the Milk Union

No.	Product	Unit	Avg. Fat %	Avg. SNF %	Quantity sold
A.	Liquid milk				
1	Toned Milk	TLPD			

No.	Product	Unit	Avg. Fat %	Avg. SNF %	Quantity sold
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 Union is as given below in the table:

Table 11: Details of marketing infrastructure of the Milk Union

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	

1.3. Financial status of the Union

- The past financial performance of the Union is given below:

Table 12: Financial Performance of the Union 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 Union 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 Milk Union under various schemes

No.	Scheme name	Loan Amount (Rs. lakh)	Grant Amount (Rs. lakh)	Union'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 Union

No.	Name of Agency	Amount received (Rs. in lakh)	Purpose	Repayment Status
1				
2				

2. Overview of Sub Project

2.1. 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.

2.2. Sub Project Area

The proposed activity would be implemented in the operational area of the Union i.e _____, _____ districts.

2.3. Activities proposed

Following activities have been proposed under the project:

- Strengthening Milk Procurement Infrastructure
- Strengthening of Milk Processing Infrastructure
- Support for Marketing Infrastructure
- Support for ICT Infrastructure
- Productivity Enhancement- *through nutritional interventions*
 - Calf Rearing Programme (CRP)
 - Animal nutrition advisory services
 - Fodder development

2.4. Beneficiaries

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

3. Sub Project Components Rationale & Design

3.1. Component A: Strengthening milk procurement infrastructure

3.1.1.Rationale

- At present, The Union has covered only ___% revenue villages and procures about ___% of milk marketable surplus villages in its operational area. The Union is facing competition from private players and unorganised players in milk procurement operations. The Union 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 Union needs to set-up Electronic milk testing equipment and BMCs at DCS level.

3.1.2.Component Design

Under this component following activities have been proposed:

- i. Setting-up of new Dairy Cooperative Society (DCS)
 - a. Milk collection accessories including testing equipment and furniture, etc.
 - b. Management grant to village level functionaries of new DCS
- ii. Installation of electronic milk testing equipment (AMCU)
- iii. Installation of Bulk Milk Coolers (BMC)
- iv. Building for DCS/BMC
- v. 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**.

3.2. Component B: Strengthening of Milk Processing Infrastructure

3.2.1.Rationale

- At present Union 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 Union 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 Union 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.

3.2.2.Component Design

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

- Proposed new milk processing plant details
The Union 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 Union is located at outskirts of PQR city. At the existing location, the Union 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 Union 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 Union 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 Union 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 Union is envisaging to manufacture BIS Type I and Type II cattle feed, mineral mixture and by-pass protein feed at the proposed plant.

3.3. Component C: Support for Marketing Infrastructure

3.3.1. Rationale

- At present, the Union is selling ___ TLPD liquid milk in its operational area under brand name ___, whereas demand of liquid milk is ___ TLPD. The Union 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 Union 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 Union over next three years is given in **Annex VIII**.

3.3.2. 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

3.4. Component D: Support for ICT Infrastructure

3.4.1. Rationale

- Information & Communication Technologies (ICT) plays a pivotal role in maintaining transparency and improving operational efficiency of a business. It is necessary for the Union 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).

3.4.2. 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 Union 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.

3.5. Component E: Productivity Enhancement

3.5.1. 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 Union 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 Union. 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 Union to meet the nutritional requirement of livestock.
- In the operational area of the Union, 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, Union proposes to enhance green fodder production and promotion of fodder conservation technologies & crop residue management at field level in its operational area.

3.5.2.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

- Fodder Development Officer (FDO), Animal Nutrition Officer (ANO) and Animal Nutrition supervisors (ANS) will be responsible for project implementation and monitoring (same for all PE activities).
- The Union 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 Union 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.
- Union 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 Union.
- 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**.

3.6. Component F: Training and Capacity Building

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

4. Sub Project Implementation Arrangement

4.1. Implementation arrangement

4.1.1. 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 Milk Union.
- The members of the Committee will be:
 - i. Managing Director/ Chief Executive Officer / General Manager of the Milk Union (Chairperson)
 - ii. Section/Department Heads (Purchase, Finance & Accounts, HR & Admin, Procurement & Inputs, Plant & Engineering, Marketing & Sales, IT/MIS.)
 - iii. Sub-Project Coordinators (all components proposed under the project)
 - iv. Grievance Redressal Officer (GRO)
 - v. NDDB representative
 - vi. 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 redressals 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 NDDDB).

4.1.2.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:
 - i. Sub Project Coordinator (one PC each for respective component) – head of the cell
 - ii. Officers & Supervisor (Milk procurement supervisor/ Marketing supervisor/AN officer, FDO, AN supervisor, CRPS – as applicable to the sub project)
 - iii. Purchase Officer
 - iv. Finance & Accounts Officer
 - v. 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

4.1.3.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.

4.2. 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**.

5. Human Resource Management

5.1. Existing Manpower

- The Union has total manpower strength of ___, of which ___ are officers, ___ are staff and ___ are workers. The day to day operations of the Union 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 Milk Union

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 Milk Union is given in **Annex XI**.

5.2. Training & Capacity Development activities of the PI

- At present, the Union 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 Union 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.

5.3. Manpower required for the proposed sub-project

The Union 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 Union 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
1.	Project Coordinators	Nos.	Identified
2.	MIS Officer	Nos.	Identified
3.	Grievance Redressal Officer	Nos.	Identified
4.	Finance Officer	Nos.	Identified
5.	Purchase (Procurement) Officer	Nos.	Identified
	Total	Nos.	

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

Component A: Strengthening of milk procurement infrastructure

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

No.	Particulars	Manpower required	Identified/ to be recruited
1.	Project Coordinator	Nos.	Identified
2.	Procurement Officer/ Manager	Nos.	Identified
3.	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.

Strengthening of milk processing infrastructure:

- 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
1.	Project Coordinator	Nos.	Identified
2.	Plant Manager	Nos.	Identified
3.	Engineers	Nos.	__(nos.)__ – to be identified
4.	Quality Control/ Lab. Chemist	Nos.	__(nos.)__ – to be identified
5.	Production Officer	Nos.	__(nos.)__ - identified, __(nos.)__ – proposed to be recruited
6.	Sr. Technician / Operator	Nos.	__(nos.)__ - identified, __(nos.)__ – proposed to be recruited

No.	Particulars	Manpower required	Identified/ to be recruited
7.	Distribution coordinator	Nos.	Identified
8.	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
1.	Project Coordinator (PC)	Nos.	Identified
2.	Engineers	Nos.	__(nos.)__ – to be identified
3.	Purchase Officer	Nos.	Identified
4.	Production Officers	Nos.	__(nos.)__ – to be identified
5.	Quality Control/ Lab. Chemist	Nos.	Identified
6.	Sr. Technician / Operator	Nos.	__(nos.)__ - identified, __(nos.)__ - proposed to be recruited
7.	Distribution coordinator	Nos.	Identified
8.	Technicians	Nos.	__(nos.)__ - identified, __(nos.)__ - proposed to be recruited
9.	Administration Officer	Nos.	To be recruited
10.	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 Union will put in place the required manpower.

Strengthening of milk marketing infrastructure:

Table 20: Details of manpower identified for component C: Strengthening of milk marketing infrastructure

No.	Particulars	Manpower required	Identified/ to be recruited
1.	Project Coordinator (PC)	Nos.	Identified
2.	Marketing Officer/ Manager	Nos.	Identified
3.	Marketing Field Staff	Nos.	__ (nos.) __ - identified, __ (nos.) __ - to be recruited
	Total	Nos.	

Strengthening of ICT infrastructure:

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

No.	Particulars	Manpower required	Identified/ to be recruited
1.	Project Coordinator (PC)	Nos.	Identified
2.	MIS Officer	Nos.	Identified
	Total	Nos.	

Manpower for Productivity Enhancement Activities:

Table 22: Details of manpower identified for component E: Productivity Enhancement – through nutritional interventions

No.	Particulars	Manpower required	Identified/ to be recruited
1.	Project Coordinator (PC)	Nos.	Identified
2.	Animal Nutrition Officer (ANO)	Nos.	To be recruited
3.	Fodder Development Officer (FDO)	Nos.	Identified
4.	Calf Rearing Programme Supervisor (CRPS)	Nos.	To be recruited
5.	Animal Nutrition Supervisor (ANS)	Nos.	To be recruited
	Total	Nos.	

6. Financial Management

6.1. Financial Analysis

6.1.1. Financial indicators

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

Table 23: Financial performance of the Milk Union

(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					

6.2. Release of Fund

The Union 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 Union. Union 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 Union 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.

6.3. Financial Management arrangements including fund flow

The Union will follow the financial management arrangements prescribed in the Project Operational Manual. The Union 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.

7. Sub Project Procurement/Purchase Arrangement

7.1. Present procurement (purchase) procedure of the Union

The Union 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.			

7.2. Proposed procurement (purchase) arrangement under the sub project

To purchase goods, works & services, the Union will follow the procurement (purchase) procedures as described in the Project Operation Manual. The Union 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**.

8. 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.

9. Environmental and Social aspects

9.1. Impact on environment

- Necessary Environmental/Statutory Clearance (EC) from concerned regulatory authority has been obtained by the Union, 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 Union 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.

9.2. 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.

9.3. 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.

9.4. Categorization of Project

- Since the land proposed for establishment of new plant under the project is owned by the Union 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”.

10. Key Performance Indicators

10.1. 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	Strengthening of Processing Infrastructure								
B1	Milk Processing Capacity to be created	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	MTPD							

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No.	Project Performance Indicators	Unit	Base-line figure (Yr ____)	Incremental Targets					EOP (Cumulative Targets)
				Yr 1 (____)	Yr 2 (____)	Yr 3 (____)	Yr 4 (____)	Yr 5 (____)	
	Manufacturing capacity to be created								
	Cattle Feed	MTPD							
	Bypass Protein	MTPD							
	Mineral Mixture	MTPD							
C	Strengthening of 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	%							
D	Support for ICT								
D1	DCS to be covered under AMCS	Nos.							
E	Productivity Enhancement – through nutritional interventions								
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 Building								
F1	Persons to be trained/capacity developed	Nos.							
	Officers	Nos.							
	Staff	Nos.							
	Farmers	Nos.							

10.2. 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.

11. Means of Finance and Sub Project Sustainability

11.1. Means of Finance

The Union proposes to avail financial assistance under the project 'Dairying through Cooperatives – key to sustainable livelihood' project. The Union will arrange its contribution from its own resources. In this regard, a copy of the Board resolution of the Milk Union 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	Strengthening Processing Infrastructure				
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 Building				
	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	Strengthening Processing Infrastructure						
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						

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No.	Particulars	2021 -22	2022 -23	2023- 24	2024 -25	2025- 26	Total
E	Productivity Enhancement – <i>through nutritional interventions</i>						
F	Training and Capacity Building						
	Total						
	Grant (GoI)						
	Loan						
	PI's/State's Contribution						

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

11.2. Security

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

Table 29: Details of security available with the Milk Union

Particulars	Location	Area (in acres)	Ownership	Book value (Rs. crore)
Land	PQR		Owned by Union	
	LMN			
	Chilling centre 1			
Building	PQR		Owned by Union	
	Chilling centre 1			
Plant/machinery	PQR		Owned by Union	
	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 Union is ____ times more than the loan amount of Rs. _____ lakh.

11.3. Sustainability of the sub project activities

- Under Strengthening of milk procurement infrastructure component, setting up of new DCS and installation of BMCs & AMCU's 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 Union will continue the implementation of Productivity Enhancement activities from its own funds to reap benefits of nutritional interventions in the long run.

11.4. Financial analysis of the sub project

- The Union 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

11.5. Sensitivity analysis

Considering the projected operations of the Union, 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 (Union/ DCS)	Status (functional/ non- functional)
	District name	Taluka Name	Village Name & Census code			
1						
2						

❖ Bulk Milk Coolers (BMC)

No.	Location			Capacity	Owned by (Union/ DCS)	Status (functional/ n on- functional)
	District name	Taluka Name	Village Name & Census code			
1						
2						

❖ Automatic Milk Collection Units (AMCU)

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

❖ Electronic Adulteration Testing Machine

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

❖ Milk Testing Laboratories

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

❖ Milk processing plant

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

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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) (1 st 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								

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[illegible]

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

A. Details of existing land area and civil structure

(Information to be provided for each dairy plant separately if the Union 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				

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Sr No	Description	Area/ Volume	Unit	Number of floors	Year of construction/ processing	Present condition (Good/Needs renovation)	Remarks
(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

B. Details of existing plant equipment

(Information to be provided for each dairy plant separately if the Union 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						

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Sr No	Section	Area	Existing Equipment name	Type	Capacity	Manufacturer	Year of installation	Working condition	Remarks
			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						

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Sr No	Section	Area	Existing Equipment name	Type	Capacity	Manufacturer	Year of installation	Working condition	Remarks
			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		<i>Please mention equipment name.....</i>						Details of major equipment
			<i>Please mention equipment name.....</i>						

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Sr No	Section	Area	Existing Equipment name	Type	Capacity	Manufacturer	Year of installation	Working condition	Remarks
			Please mention equipment name.....						to be provided
			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					

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Sr No	Section	Area	Existing Equipment name	Type	Capacity	Manufacturer	Year of installation	Working condition	Remarks
			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						

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Sr No	Section	Area	Existing Equipment name	Type	Capacity	Manufacturer	Year of installation	Working condition	Remarks
			Raw water pumps						
			Water softening plant						
			RO plant						
			DM water plant						
			Treated water pumps						
L	Effluent treatment plant		Effluent treatment plant	Aerobic/ Unaerobic & aerobic					

Annex VI: Filled-in site selection format

A. Milk processing plant

Name of the proposed project	:	_____
Location of Site	:	_____
District	:	_____
1. Land map	:	Enclosed /Not available
2. Survey map at the site showing	:	
• North point	:	
• Scale (mm 1:800)	:	
• Area and Dimensions of the plot	:	_____Sq.Mtrs. [____ M x ____ M]
• 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	:	_____

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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
16. Name & address of DRM to be Contacted : _____
17. Nearest Highway : _____
18. a) Distance from nearest Highway : _____
- b) Distance from Municipal Limits : _____
19. 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
22. 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

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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.
25. 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
26. Is any sanction required from : _____ Metres
Local authorities for drilling of tube
Wells
27. Address of nearest office of Central : _____
Ground Water Board or any similar
State agency
28. A hydrological map of the area, : Yes/No.(to be enclosed if available)
If possible
29. Effluent disposal :
- a) Distance and location of nearest : _____ Metres
Possible place
- b) Capacity of municipal drain/ : _____ Cusece
Nullah etc.
- c) 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 Effluent before disposal such
as BOD & PH etc.)
- d) How is effluent of the nearby :
Industries disposed off
30. Power Supply
- a) Is any HT line passing through site : _____ Yes/No

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(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
- f) Upto what load can LT power be : _____ KVA
made Available
31. 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
34. General water in the area :
- a) 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.
35. Name of local reputed contractors:
- a) Civil : _____
- b) Electrical/Mechanical : _____

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- c) Sanitary : _____
- d) Suppliers : _____
- e) Transporters : _____
- f) Chamber of commerce : _____
36. Address of local PWD Office : _____
37. Minimum wages applicable in the : _____ Rs./day
Area.
38. Addresses of :
- a) Factory inspector : _____
- b) Boiler inspector : _____
- c) Electrical Inspector : _____
- d) Explosive inspector : _____
- e) Civil Supplies Deptt. : _____
39. Nearest Cement Factory : _____
40. Address of nearest HSL/TATA/
TISCO stockyard : _____
41. Local materials used for construction : _____
And their rates
42. Location & distance of the nearest : _____
Petrol/diesel filling station.

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

Annex VII: Civil and equipment requirement along with specifications

A. For establishment of ____ TLPD capacity milk processing plant

i. 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 Lakhs)	

ii. Cost estimates – Civil works

Description	Qty	Unit	Unit Rate Rs	Sub Total Rs.	Amount Rs. Lakhs
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					

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Description	Qty	Unit	Unit Rate Rs	Sub Total Rs.	Amount Rs. Lakhs
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					

iii. 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					

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Description	Capacity	Qty	Unit Price	Total Price	Total Price in Lakh Rs
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					

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Description	Capacity	Qty	Unit Price	Total Price	Total Price in Lakh Rs
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					

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Description	Capacity	Qty	Unit Price	Total Price	Total Price in Lakh Rs
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 carboys unloading tank					

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Description	Capacity	Qty	Unit Price	Total Price	Total Price in Lakh Rs
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					

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Description	Capacity	Qty	Unit Price	Total Price	Total Price in Lakh Rs
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)					

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Description	Capacity	Qty	Unit Price	Total Price	Total Price in Lakh Rs
Liquid ammonia pumps 1.5 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 STORAGE/ DEEP FREEZERS INSULATION					
USING PUF SANDWICHED PANELS & FDC UNITS					
Milk Cold Storage					
Dahi blast cooler					
Dahi Cold storage					

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Description	Capacity	Qty	Unit Price	Total Price	Total Price in Lakh Rs
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					

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Description	Capacity	Qty	Unit Price	Total Price	Total Price in Lakh Rs
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					

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Description	Capacity	Qty	Unit Price	Total Price	Total Price in Lakh Rs
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					

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Description	Capacity	Qty	Unit Price	Total Price	Total Price in Lakh Rs
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					

B. (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	Lakhs						
Per capita Consumption	Gms/ day						
Liquid Milk Demand Potential	TLPD						
Total Milk sales by the Union	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						

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Particulars	Unit	Base Yr.	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5
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						
Union'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 Union	Nos						
Product 1	TLPD/ MTPD						
Product 2							
Product 3 etc							
New Product launch 1							

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Breakup of Products Sales	Unit	Base Yr.	Yr -1	Yr -2	Yr-3	Yr-4	Yr-5
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						

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Particulars	Unit	Base Yr.	Yr -1	Yr -2	Yr-3	Yr-4	Yr-5
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 Union

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	ft ²						
Vehicle Paintings/Vinyl Pasting	ft ²						
Parlour Paintings/Vinyl Pasting	ft ²						
Retail shop Painting	ft ²						
Ads on Bus Shelter	ft ²						
Print Media							
Newspaper Ads	Nos						
Newspaper insertions	Nos						
Pamphlets	Nos						

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Particulars	Unit	Base Yr.	Yr -1	Yr -2	Yr-3	Yr-4	Yr-5
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 (<i>Eg. Cooking competition, Most Progressive Retailers & Distributors, etc.</i>)	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

A. 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								

B. 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								

C. 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 Union 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 Union 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: Strengthening of Milk Processing Activities

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: Strengthening of 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 Union 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 Union 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 Union for the project activities																	
2	Purchase of Goods																	
	Capital Items																	
	Stock record of goods																	
3	Pilot run																	
5	Training & Capacity Building																	
	Training of Union employees																	

Component E: Productivity Enhancement- through nutritional interventions

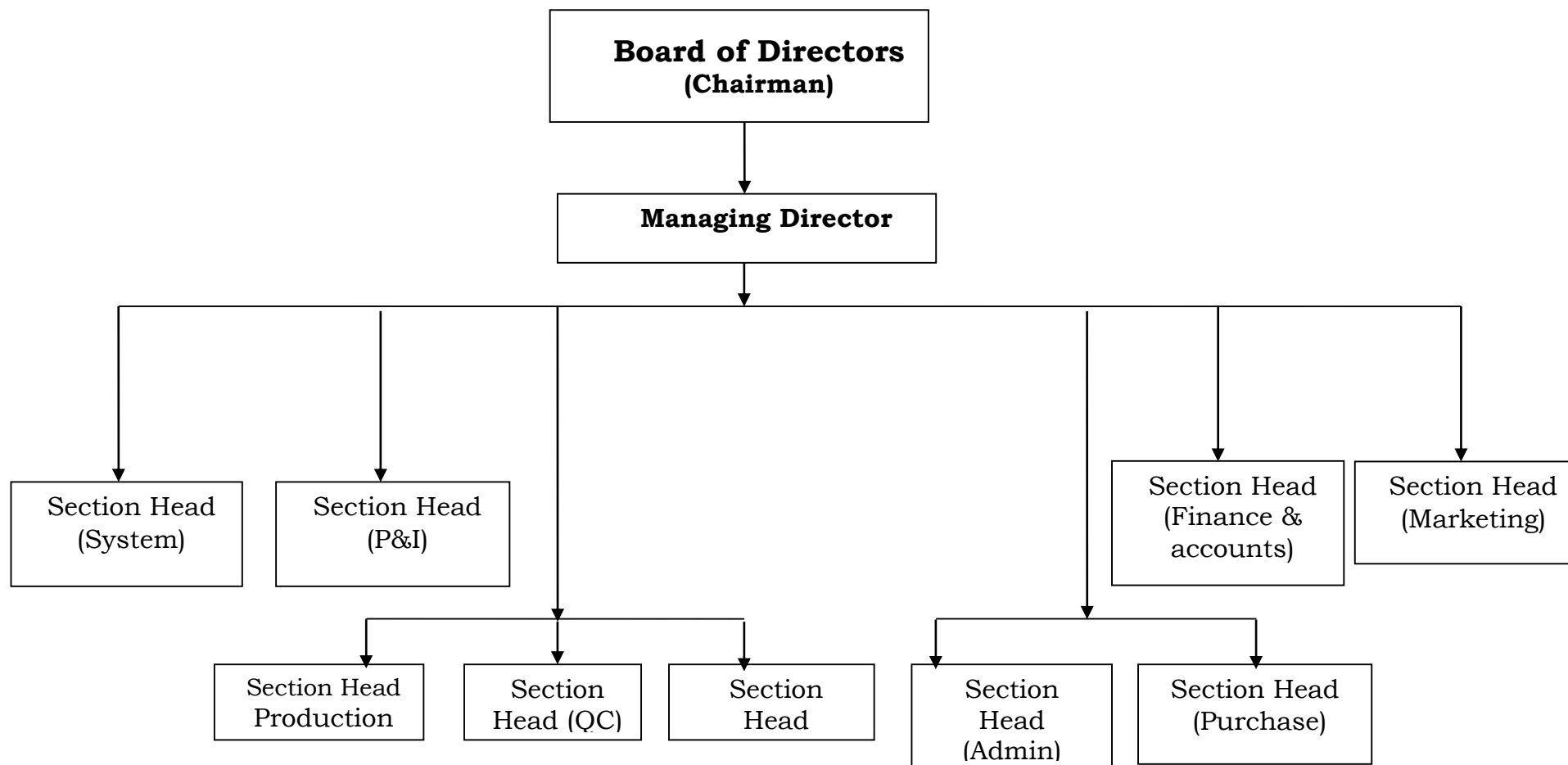
No.	Activity	Total time taken to complete the activity (in days)	Year 1								Year 2							
			Month 1				Month 2				Month 1				Month 2			
			W 1	W 2	W 3	W 4	W 1	W 2	W 3	W 4	W 1	W 2	W 3	W 4	W 1	W 2	W 3	W 4
1	Identification and recruitment of manpower																	
	Identification of ANO/ FDO																	
	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																	

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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
	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/FDO																	
	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 Milk Union



Annex XII: Procurement Plan and Procurement Schedule

A. 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									

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?

□NO

☒ Implemented ☐ Not implemented

□Administrative body

□NGO

☐ Others ()

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?

☐ Other

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.

(Reason why EIA is required: _____)

☐ Other (please explain)

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.

<input type="checkbox"/> Approved without a supplementary condition	<input type="checkbox"/> Approved with a supplementary condition	<input type="checkbox"/> 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

<input type="checkbox"/> Cultural heritage	[]
<input type="checkbox"/> Infectious diseases such as HIV/AIDS		
<input type="checkbox"/> 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 Milk Union 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 Union for receiving assistance under ‘Dairying Through Cooperatives (DTC) scheme.’”

“FURTHER RESOLVED THAT the Union intends to establish ____ new DCS, ____ BMCs and ____ AMCU, ____ LLPD dairy plant, ____ walk-in-cold storage. The Union 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 Union 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 Union hereby assures that it would continue to implement all the activities under the project on a sustainable basis.”

“FURTHER RESOLVED THAT, the Union 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 Union.

“FURTHER RESOLVED THAT Managing Director of the Union be and is hereby authorised to execute all documents including the Loan Agreement with National Dairy Development Board (NDDB), on behalf of the Union 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						

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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
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														

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Component B - Strengthening of Milk Processing 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	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, Yoghurt 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														

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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
	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														

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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														

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Component D – Support for Information & Communication Technology

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 <i>(note a)</i>	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														

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Component E - Productivity Enhancement – through Nutritional Interventions

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						

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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
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						

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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
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	Lakhs							1.00						
	Planting of fodder trees	Lakhs							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						

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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
	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														

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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
	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						

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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
E.2	Training to AN and CRP Supervisors (<i>with 50% physical contingency</i>)	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) (<i>note v</i>)	No.							7.20						
F.2	Salary to Animal Nutrition Supervisor (2 per district) (<i>note w</i>)	No.							3.00						
F.3	Salary to CRP Supervisor (5 per district) (<i>note x</i>)	No.							1.80						
F.4	Laptop for ANO (<i>note y</i>)	No.							0.70						
F.5	Tablet for Animal Nutrition Supervisors and CRP Supervisors (<i>with 20% physical contingency</i>) (<i>note z</i>)	No.							0.17						
F.6	Camera to ANO (<i>note aa</i>)	Nos.							0.30						
F.7	Propulsion charges for ANO (<i>note ab</i>)	No.							3.60						
F.8	Mobile and internet charges (<i>note ac</i>)														
	Animal Nutrition Officer	No.							0.06						
	Animal Nutrition & CRP Supervisor	No.							0.04						

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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
F.9	Office expenses for ANO (<i>note ad</i>)	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

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- 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

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Component F – Training and Capacity Building

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 - Strengthening Milk Processing Infrastructure															
B1	Dairy Plant Management	Nos.							0.3						

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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
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 - Strengthening 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 - Infrastructure & Communication Technology															
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														

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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)											

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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
	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)											

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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
	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										

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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
	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											
	<i>Actual Depreciation</i>											
	<i>Less Grant recognised</i>											
	Total Expenses											
C3	Profit											
C4	Depreciation											
C5	Cash Profit											

Figures are indicative.

Annex XVIII: Projected Operating Statement of the Union

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 _____														

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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
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													

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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
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												

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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
	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												

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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
	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												

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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
	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												

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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
	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												

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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
	Profit After Tax (PAT) + Interest + Deprn												
	Total Repayment												
	DSCR												

Figures are indicative.