



National Dairy Development Board
(NDDB)

Environment Social Assessment for National Dairy Support Project Phase-II

Draft Stakeholder Engagement Plan (SEP)

30 January 2023

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Environment Social Assessment for National Dairy Support Project Phase-II

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Draft Stakeholder Engagement Plan

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Santosh Kumar Kulkarni
Partner

Tufail Khan
Senior Consultant

ERM India Private Limited

Building No:10, Tower B
3rd Floor, DLF Cyber City
Gurgaon, NCR- 122002

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Abbreviations

AMCS	Automatic Milk Collection System
APL/BPL	Above poverty line/below poverty line
BMC	Bulk Milk Cooler
CPSC	Central Project Steering Committee
CSR	Corporate Social Responsibility
DAHD	Department of Animal Husbandry and Dairying
DCS	Dairy Cooperative Societies
DCS	Dairy Cooperative Societies
DG	diesel generator
DMS	Delhi Milk Scheme
DMUs	District Milk Unions
DORB	De Oiled Rice Bran
DPR	Detailed project report
E&S	Environment and Social
ESF	Environment and Social Framework
ESMF	Environmental and Social Management Framework
ESS	Environment and Social Standard
EVM	Ethnoveterinary medicine
FGD	Focused group discussion
FPO	Farmer Producer Organization
FRC	Forest Rights Committee
FSMS	Food Safety Management System
FSSAI	Food Safety and Standards Authority of India
GBVH	Gender based violence & harassment
GHG	Green House Gas
GRM	Grievance Redress Mechanism
GRO	Grievance Redress Officer
GRO	Grievance Redressal Officer
ICAR	Indian Council of Agricultural research
ICT	<i>Information and Communications Technology</i>
IEC	Information, education and communication material
IP	Indigenous people
IPPF	Indigenous People Policy Framework
KLD	Kilo liters per day
KPIs	Key Performance Indicators
KVK	Krishi Vigyan Kendras
LEO	Lady Extension Officer
M&E	Monitoring & Evaluation
MIS	Management Information Systems
MMT	Million metric ton
MPCDF	Madhya Pradesh State Cooperative Dairy Federation
MPP	Milk Pooling Points
NDDB	National Dairy Development Bank
NDP	National Dairy Plan
NDSP	National Dairy Support Project

NGO	Non-government organisation
OMFED	Orissa State Cooperative Milk Producers' Federation
PC	Producer Company
PESA	Panchayat (Extension to Scheduled Areas) Act
PFC	Project Facilitation Cell
PMU	Project Management Unit
POI	Producer Owned Institutions
PSC	Project Sanctioning Committee
RFCTLARR	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement
RPF	Resettlement Policy Framework
SC/ST	Scheduled Castes/Scheduled Tribes
SE	Stakeholder Engagement
SEA/SH	Sexual Exploitation Abuse/Sexual Harassment
SEP	Stakeholder Engagement Plan
SHGs	Self Help Groups
SLTMC	State Level Technical Management Committee
SPPs	Sub-project plans
SPV	Solar Photovoltaic
TMR	Total Mixed Ration
TSS	Thermal Storage System
UCDF	Uttarakhand Co-operative dairy Federation
WB	World Bank

EXECUTIVE SUMMARY

NDDDB has proposed the National Dairy Support Project Phase II (NDSP Phase-II) for World Bank support with the broad objective *‘To enhance competitiveness, foster inclusion, improve resilience and reduce the carbon footprint of milk value chains, focusing on small farmers in project areas’*. The Project will focus on less dairy developed States, which have been identified based on the supply infrastructure of Producer Owned Institutions (POIs) (functional Dairy Cooperative Societies (DCSs)/ Milk Pooling Points (MPPs) coverage, milk procurement share and processing capacity) and liquid milk marketing coverage. Overall interventions/activities defined under the project are grouped under four major components that includes: 1) *Component A-Enhancing Institutional Capacity and Sustainability*; 2) *Component B-Strengthening Dairy Market Development*, with specific sub-components on ‘strengthening the dairy supply chain system’, ‘strengthening the sales and marketing system’, ‘enhancing food safety and quality’, ‘strengthening dairy business operations through ICT support’; 3) *Component C-Productivity Improvement and Enhancing Climate Resilience* with specific sub-components on ‘promotion of scientific feeding practices’, ‘demonstration of fodder production & conservation technology’, ‘pilot on control of bovine mastitis & EVM’, ‘manure value chain development programme’, ‘Pilot on Solar Energy solution for dairy, and ‘pilot on evolving Green House Gas (GHG) mitigation Strategies; and 4) *Component D-Project Management and Learning*, focusing on placing robust monitoring and evaluation system.

As per the World Bank’s Environment and Social Framework, Stakeholder Engagement needs to be carried out throughout the project cycle. Environment and Social Standard (ESS-10) lays a systematic approach and framework to identify the stakeholders and engage with them in a continuous process.

The SEP is developed basis of ESS 10 requirements on ‘Stakeholder Engagement and Information Disclosure’, and it takes into account exiting institutional and regulatory framework that may be applicable in the context of the stakeholder engagement process for the project. The SEP is a guiding document and shall be updated at various stages of project life cycle. Updating and inclusion of new stakeholder will be done as a continued process. As per ESS10, project stakeholders are categorized into three groups: 1) Project affected parties, 2) Other interested parties, and 3) disadvantaged and vulnerable individuals or groups. For NDSP-Phase II, the SEP also includes project proponents. Stakeholder groups identified for the NDSP Phase-II Project is listed below.

Project Proponents	Project Affected Parties	Other Interested Parties	Vulnerable Groups
<ul style="list-style-type: none"> ■ Department of Animal Husbandry and Dairying (DAHD) ■ NDDDB ■ World Bank – Project lender 	<ul style="list-style-type: none"> ■ Dairy Cooperative Societies (DCS) / Milk Pooling Points ■ Milk Unions/Milk Plant ■ Milk Producer Companies/Farmer Producer Organisation (FPO)/Milk Producer Organisation formed by SHGs ■ State Milk Federations ■ Dairy Farmers/Milk Producers ■ Village level functionaries such as AI technician, DCS secretary, Pashu Sakhis, Sahayaks, Animal Health 	<ul style="list-style-type: none"> ■ Veterinarian/ Veterinary hospitals/clinic at district/block/ panchayat level ■ Cattle Feed Plant/TMR Plant ■ Transportation service provider ■ ICAR/Agriculture University/ Regional Fodder Station/ Veterinary College ■ NGOs ■ FSSAI (Food Safety and Standards Authority of India) 	<ul style="list-style-type: none"> ■ Women members of community engaged in dairy ■ Scheduled Caste / Scheduled Tribes community members ■ Landless labours/small holder dairy farmers ■ Dairy farmers with disabilities

	<ul style="list-style-type: none"> Workers and other resource persons ■ Customer/retailers / distributor of milk & milk products/ Milk Booths ■ Workers engaged in operating BMCs, Chilling Plant, Dairy Plant, Milk Unions ■ 	<ul style="list-style-type: none"> ■ Other Government department like Labour Department, Environment department etc.) 	
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Based on assessment of potential impacts on the stakeholders and the influence that these stakeholder groups may have over the project, the engagement needs of these stakeholder groups have been identified. This SEP also discuss the engagement method, timing of engagement and disclosure of project information as well as responsible parties to ensure engagement with different stakeholder groups in the course of project implementation. One round of consultations undertaken during the preparation phase, were mainly to inform stakeholders about the Project details and to get their opinion, issues and feedback on the proposed project interventions for dairy improvement. Key issues notes at farmers/milk producer level were pertaining to lack of dairy extension services; lagging awareness w.r.t animal health, disease control, scientific calf rearing, ration balancing, safe milking practices, process of accessing active government schemes on dairy sector etc.; lack of training and capacity building opportunities etc. Similarly, major issues noted in consultation with POIs were regarding requirement for upgrading and upscaling the infrastructure required in milk processing units (Milk Plants, BMCs, Chilling centers) and supply chain process.

The Stakeholder Engagement Plan (SEP) shall be informed by a set of principles like inclusiveness, meaningful dialogue, transparency, mutual respect etc. that will be defining its core values underpinning interactions with identified stakeholders. The stakeholder engagement strategy will consider/refer to additional safeguards for specific circumstances during project implementation period. This will include; 1) SE safeguards from Resettlement Policy Framework perspective while dealing with voluntary land procurement, 2) additional SE safeguards while dealing with GBVH/SH related grievances as per GBVH/SH prevention and response plan, and 3) SE safeguards specific to the situation of engagement with IP community as per IPPF.

Grievance Redress Mechanism (GRM) is another important aspect of SEP. NDDB and respective Producer owned institutions (POIs) like District Milk Unions (DMUs), Producer companies etc., will designate one of their staff as Grievance Redress Officer (GRO) for the GRM as per the defined process. Estimated budget for SEP implementation for project lifecycle is approximately 12.0 million Indian Rupees and it will include activities like orientation program with POIs, physical and virtual consultations with different categories of stakeholders, development of IEC/ publicity material and cost of using social media for awareness generation, information dissemination, trainings and capacity building workshops. It will also cover the cost of documentation as well as conduct of physical and virtual trainings of direct project stakeholders including key staff members of NDDB and POIs.

1. INTRODUCTION

1.1 Project Description

With the sustained growth of the Indian economy and a consequent rise in the purchasing power of consumers during the last two decades, demand for liquid milk & milk products is increasing. This trend is expected to continue in the short and medium run. At present, the demand for milk in India is growing fast. The key drivers for growth in demand for milk are: (i) rising per capita income; (ii) growing urbanization and changing food habits; (iii) increase in population; and (iv) export opportunities. To meet the national demand of liquid milk & milk products through domestic sources there is a need to increase milk production, enhancing milk-processing infrastructure, bringing technological interventions in the sector so that required pace is maintained.

To address the above, National Dairy Development Board (NDDB) successfully implemented National Dairy Plan I (NDP I) which ended in 2019-20 and results are encouraging in terms of improving productivity of animals and thereby sustaining the momentum in growth in country's milk production¹. As per the study on "Demand of milk & milk products in India" conducted by Nielsen for NDDB in 2019 under NDP I, the demand for milk and milk products in India by 2030 is estimated to be 266.5 MMT. To sustain the same growth in milk production and provide milk producers access to organized milk market, support for various input services and village level institution building & milk procurement needs to be continued further. In order to sustain the growth in milk production, increasing coverage of dairy cooperative entities and ensuring quality & safe milk to consumers, NDDB has proposed the National Dairy Support Project Phase II (NDSP-II) for World Bank support with the broad objective '**To enhance competitiveness, foster inclusion, improve resilience and reduce the carbon footprint of milk value chains, focusing on small farms in project areas**'. The Project Development Objective Indicators by end of the project period are:

- Increase in the share of milk sold to the organized sector by 30%;
- Increase in milk processing capacity under quality assessment systems (of selected POIs) by 80%;
- About 30,000 Project beneficiaries adopting climate-smart practices;
- Reduction in methane emissions per liter of milk by 10%;
- About 25,000 milk producers are expected to adopt climate-smart rearing practices.

The Project will focus on less dairy developed States, which have been identified based on the supply infrastructure of Producer Owned Institutions (POIs) (functional Dairy Cooperative Societies (DCSs)/ Milk Pooling Points (MPPs) coverage, milk procurement share and processing capacity) and liquid milk marketing coverage. Further, due representation has been given to the hilly & North-Eastern States. Accordingly, 6 States have been identified for the project, viz. Jharkhand, Odisha, Madhya Pradesh, Himachal Pradesh, Uttarakhand, and Sikkim. The pilot activities envisaged in the project may be located within or outside the identified Indian states. The program is proposed to be implemented for a period of 5 years extendable up to 7 years.

NDSP Phase-II Project have four major components as summarized below;

Component A-Enhancing Institutional Capacity and Sustainability: focuses on institutional capacity development, extension and awareness generation, and resource allocation based on the gap assessment for effective implementation & monitoring of sub projects by POI. This will help in long-term sustainability with improved performance of the POI.

Component B-Strengthening Dairy Market Development: having several interventions identified under four sub-components which includes: 1) B1- Strengthening the dairy Supply Chain System, 2)

¹ Request for Proposal (RFP) for conducting Environment and Social Assessment issued by NDDB.

B2- Strengthening the sales and marketing system, 3) Enhancing Food Safety and Quality, 4) B4 - Strengthening dairy business operations through ICT support

Component C: Productivity Improvement and Enhancing Climate Resilience: having several interventions under six sub-components which includes: 1) C1: Promotion of Scientific Feeding Practices, 2) C2: Demonstration of Fodder Production & Conservation Technology, 3) C3: Pilot on control of Bovine Mastitis & EVM, 4) C4: Manure Value Chain Development Programme, 5) C5: Pilot on Solar Energy solution for dairy, and 6) C6: Pilot on evolving Green House Gas (GHG) mitigation Strategies

Component D: Project Management and Learning: focus on placing a robust monitoring and evaluation system that will provide opportunities for learning and sharing good practices both in the project area nationally and internationally. This includes computerized MIS at NDDB and POIs level; baseline, mid-term, annual and project completion surveys and other special surveys/studies; Third-party quality assurance of civil works under the project; and Support for project co-ordination and monitoring

1.2 Purpose of the Stakeholder Engagement Plan (SEP)

NDSP Phase-II Project is to be implemented in accordance with the World Bank's Environment and Social Framework (ESF), 2016, effective from 2018; for managing and mitigating potential E&S issues. As per the requirements under ESS10 on 'Stakeholder Engagement and Information Disclosure', this plan has been developed to guide the engagement of various project stakeholders, including affected and interested parties with the project during its life cycle, spell the strategies and approaches that would be in place to ensure that all stakeholders are informed about all proposed project activities and their impacts in a culturally appropriate manner and mechanisms that would be developed by the project to systematically seek their feedback, while ensuring the engagement needs of the disadvantaged and vulnerable groups in the context of the project. The plan also outlines the grievance redress mechanisms that will be made available to the project stakeholders to raise their concerns and provide feedback related to the environmental and social performance of the project.

This Stakeholder Engagement Plan applies to the entire project lifecycle (planning, construction and operations phases) as outlined in the ESMF and shall be considered as an overarching guidance document with specific components that shall be updated regularly by NDDB, as required. It will be used by the Project Management Unit (PMU) of NDDB and the POIs as guidance for effective collaboration amongst the duty bearers, producers, consumers and the local communities in order to minimize and mitigate potential adverse environmental and social impacts of the project, enhance outreach and ensure that project benefits are equitably distributed among all target beneficiaries including those that are excluded, vulnerable or disadvantaged in partaking those benefits.

This SEP shall serve the following purpose:

- Identify different categories of stakeholders in the context of this project and commensurate to the likely risks and impacts posed to them;
- Understand the requirements for engagement for each category of stakeholder under the project, including their information and engagement needs;
- Create opportunities for stakeholders to effectively participate in project activities and derive direct and indirect benefits from the project investments;
- Provide a roadmap for stakeholder engagement, including the strategies and approaches to be adopted and their timing through the project cycle;
- Provide guidance on the likely information disclosure and consultation strategies that the project could use based on a) their importance, b) the profile and needs of the targeted stakeholders- giving the stakeholders an opportunity to proactively participate and influence project planning/ design;

- Establish formal grievance/resolution mechanisms for the stakeholders;
- Define roles and responsibilities for implementation of the SEP, including the resource requirements; and
- Recommend the reporting and monitoring measures to ensure effective implementation of the SEP.

1.3 Approach to develop the SEP

Social Standard (ESS-10 of WB ESF) lays a systematic approach and framework to identify the stakeholders and engage with them in a continuous process. This SEP is also developed with the similar approach wherein specific project stakeholders for NDSP Phase-II Project were identified basis of detailed review of Project component & sub-components. Detailed stakeholder consultation undertaken as part of ESMF study for project informed the stakeholder identification process further and assisted in developing the understanding of engagement needs and method of engagement for different stakeholder groups identified for the project.

Learnings drawn from NDP-I have also shaped the understanding to develop this SEP. The World Bank evaluation report titled as '*NDP-I Implementation Completion and Result Report*²' specifically highlights that NDDDB's leadership in undertaking massive training, capacity-building and promotion/dissemination program to position the project for the full investment phase and thus contributed to effective engagement with stakeholders. Thus training and capacity building program emerged as one of the key engagement methods with key stakeholder groups (like DCSs/MPPs member, dairy farmers, field level functionaries & other technical staff engaged in operation of POIs) for the success of project implementation. For project information dissemination, radio samvad is one the important methods to ensure last mile connectivity in the areas of project interventions.

1.4 Limitation

This SEP document is currently not informed with the impact on stakeholders of greenhouse gas (GHG) emissions associated with the project interventions, and it can be updated further after the finalisation of the ESMF document that will capture GHG emission-related impacts on stakeholders. Similarly, the present SEP document will be updated with the outcome of appropriate mitigation actions and/or exclusion criteria that shall be developed in the ESMF document to ensure that natural habitats remain unaffected due to the proposed operation.

1.5 Layout of the Report

The layout of this SEP Report is as follows;

Section 1	Introduction
Section 2	Legal Framework and Requirement for Stakeholder Engagement
Section 3	Stakeholder Identification and Mapping
Section 4	Stakeholder Consultations Summary and Feedback received
Section 5	Proposed Stakeholder Engagement Strategy
Section 6	Implementation arrangement and Monitoring Mechanism
Section 7	Grievance Redressal Mechanism

² <https://documents1.worldbank.org/curated/en/963861597014201705/pdf/India-National-Dairy-Support-Project.pdf>

2. LEGAL FRAMEWORK AND REQUIREMENT FOR STAKEHOLDER ENGAGEMENT

2.1 World Bank's Requirement

World Bank Environment and Social Framework (ESF) recognizes that effective engagement with the stakeholders can significantly improve the project outcomes and their sustainability through better acceptance and ownership by stakeholders, enhance the environmental and social sustainability of projects, and hence make a significant contribution to successful project implementation. NDDB, through the POIs, will engage with stakeholders throughout the project life cycle in a manner that enables meaningful consultations with various stakeholders on project design, and implementation.

ESS10 emphasizes stakeholder engagement throughout the project life-cycle, and requires a Stakeholder Engagement Plan (SEP). It encourages early identification of stakeholders, both project-affected parties and other interested parties. Under ESS10, engagement must be proportionate to the nature, scale, risks and impacts of the project, and appropriate to stakeholders' interests. It further specifies process and criteria for information disclosure and meaningful consultation and it requires an accessible and inclusive grievance mechanism, proportionate to risks and impacts. Requirement of stakeholder engagement is also underlined under ESS1, ESS4, ESS 5 and ESS7 which get addressed eventually refers to overarching SEP requirement under ESS10.

2.2 National Requirements

Apart from the requirements under ESS10, this SEP also fulfills the requirements for information disclosure and stakeholder consultation prescribed under the legislations of the government of India, as discussed below;

- **Right to Information Act, 2005:** This is a progressive rights-based accountability and transparency enforcement mechanism available to citizens, which allows them to seek information related to government programs in personal or larger public interest and mandates the provision of this information within a stipulated timeframe. The Act is implemented in states through the office of the State Information Commissioners and Information officers designated for each public office. It makes the public offices and duty-bearers liable to providing correct and detailed information demanded by the citizen within designated timeframes, with mechanisms for appeals and sanctions if information provided is inadequate or incorrect. Most POIs for the NDSP-II project are considered public agencies, and therefore, they come under the ambit of RTI 2005;
- **Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013:** This Act requires that in case of involuntary resettlement, all project affected persons and families be duly consulted and engaged in the process of social impact assessment and the process mandatorily include community consultations to assess the nature and magnitude of impact. The Act also provides for seeking inputs and concurrence from the affected families, communities and Gram Sabha (village assembly) on the draft resettlement package prepared for them and incorporation of their suggestions and concerns in the final package.

While under NDSP-II most of the POIs already possess land for upgradation and modernization, the POIs will ensure that land is available for setting up of any additional infrastructure and is free from encumbrances. Project doesn't envisage any acquisition of private land and associated permanent rehabilitation or resettlement. However, RFCTLARR will be applicable in cases of temporary displacement or loss of livelihoods due to the project activities;

- ***The Panchayat (Extension to the Scheduled Areas) Act 1996:*** is enacted to provide for the extension of provisions of Part IX of the Constitution relating to the Panchayats in the Scheduled Areas {as referred to in Clause (1) of Article 244 of the Constitution}. The Act empowers Gram Sabha of the Scheduled areas to approve plans, programs and projects for social and economic developments before such plans, programs and projects are taken up for implementation at the village level. PESA is applicable to NDSP- II as many of the proposed project states and districts come under Schedule V;
- ***Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006:*** seeks to recognize and vest the forest rights of forest dwelling Scheduled Tribes and other traditional forest dwellers, who have been residing in or accessing such forests for generations, but whose rights could not be recognised. The Act provides a key role of Gram Sabha in terms of according consent/approval for implementation of certain provisions of this Act such as; 1) Development Rights under Section 3 (2) of the Act, empowers Gram Sabha to seek developmental projects which may involve felling of trees or require diversion of forest land, 2) Individual and Community Forest Rights under section 3 (1) of the Act wherein Gram Sabha through the Forest Rights Committee (FRC) is empowered to initiate the process for determining the nature and extent of individual or community forest rights or both that may be given to the forest dwelling communities. The Act is applicable since legal access to common properties, like traditional pastures or customary grazing lands, access to seasonal forest resources to nomadic and pastoral communities or setting up community infrastructure/ centre are recognized under it upon the recommendation of the Gram Sabha.
- ***The Scheduled Caste and the Scheduled Tribes (Prevention of Atrocities) Act 1989:*** the Parliament passed the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989 as a safeguarding instrument. This Act underwent substantial amendments in 2013, 2014, 2015, 2018, and 2019. The SC/ST. This Act has been specifically enacted to deter acts of indignity, humiliation and harassment against members of Scheduled Castes and Scheduled Tribes. The Act has been enacted keeping in view the express constitutional safeguards enumerated in Articles 15, 17 and 21 of the Constitution, with a twin fold objective of protecting the members of these vulnerable communities as well as to provide relief and rehabilitation to the victims of caste based atrocities.

Applicable WB ESF (2016) requirements on stakeholder engagement commensurate to the risks and impacts from NDSP-II and national provisions related to engagement with project stakeholders will be adhered to as part of the SEP.

3. STAKEHOLDERS IDENTIFICATION AND MAPPING

3.1 Identification of Stakeholder Groups

As per ESS10, project stakeholders are defined as individuals, groups or other entities who:

- (i) are impacted or likely to be impacted directly or indirectly, positively or adversely, by the Project or “**affected parties**”;
- (ii) have interests that may be affected by the project interventions and who have the potential to influence its outcomes or “**other interested parties**”; and
- (iii) persons who may be disproportionately impacted or further disadvantaged as compared to other groups due to their vulnerable conditions, and may require special efforts to ensure their participation and agency in the consultation and decision-making process or “**disadvantaged and vulnerable individuals or groups**”).

As implementation of NDSP-II will require coordination and engagement across DAHD entities within the subject states, several NDDB teams and lenders, a specific stakeholder category on Project Proponents has also been created.

Based on this guidance and the approach for stakeholder identification (**Refer sub-section 1.1**) the following project stakeholders have been identified:

Table 3-1 Stakeholder Identification

Stakeholder Category	Stakeholder Group	Stakeholders
Project Proponents	Project Proponent/Lenders	<ul style="list-style-type: none"> ■ DAHD - project proponent ■ NDDB - project proponent ■ Project Lender and Financers, e.g. the World Bank
Project Affected Parties	Local community	<ul style="list-style-type: none"> ■ Dairy Farmers/Milk Producers, ■ Customer/retailers / distributor of milk & milk products/ Milk Booths,
	Local Village group	<ul style="list-style-type: none"> ■ Dairy Cooperative Societies (DCS) / Milk Pooling Points (MPP)
	POIs	<ul style="list-style-type: none"> ■ State Milk Federations, ■ Milk Unions/Milk Plant, ■ Milk Producer Companies/Farmer Producer Organization (FPO)/Milk Producer Organization formed by SHGs,
	Dairy Sector Workforce	<ul style="list-style-type: none"> ■ Village level functionaries such as AI technician, DCS secretary, Pashu Sakhis, Sahayaks, Animal Health Workers and other resource persons, ■ Workers engaged in operating BMCs, Chilling Plant, Dairy Plant, Milk Unions
Other Interested Parties	Institutions	<ul style="list-style-type: none"> ■ ICAR/Agriculture University/ Regional Fodder Station/ Veterinary College
	Veterinary institution/resource person	<ul style="list-style-type: none"> ■ Veterinarian/ Veterinary hospitals/clinic at district/block/ panchayat level ■ Cattle Feed Plant/TMR Plant
	Transport service provider	<ul style="list-style-type: none"> ■ Transport service provider (Milk & milk products/seed/fodder etc.)
	Regulatory compliance department	<ul style="list-style-type: none"> ■ FSSAI (Food Safety and Standards Authority of India)

Stakeholder Category	Stakeholder Group	Stakeholders
		<ul style="list-style-type: none"> ■ Other Government department like Labour Department, Environment department etc.)
	Civil society	<ul style="list-style-type: none"> ■ NGOs
Disadvantaged or vulnerable individual or groups	Local community	<ul style="list-style-type: none"> ■ Women members of community engaged in dairy ■ Scheduled Caste community members ■ Scheduled Tribes community members ■ Landless labours/small holder dairy farmers/Agriculture labour ■ Dairy farmers with disabilities

3.2 Stakeholder Mapping and Analysis

The sub-section assess likely impact from project on the stakeholders groups along with an assessment on their engagement needs for the project. This is informed by outcome of detailed /consultations (**Refer Annexure-2**) undertaken in the field as part of ESMF.

Table 3-2 Stakeholder Analysis

S No	Stakeholder Category/Group	Specific Stakeholder	Overview/Profile	Likely impacts from Project investment	Specific Engagement/Information Needs
A	Project Proponents				
A.1	NDDB	Implementation Agency	NDDB is the key steering agency responsible for implementing the National Dairy Support Project Phase II. Under the project, various interventions are envisaged which will help in addressing various challenges faced by dairy farmers and POIs.	Capacity building of staff, increased technical capacity for handholding of POIs, increased connect with POI, opportunity for pilots & studies for deriving learning	<ul style="list-style-type: none"> Ensure clarity on project component for other stakeholders Coordination with DAHD and state governments for project implementation
A.2	DAHD	Line Department	The Department is responsible for matters relating to livestock production, preservation, protection from diseases and improvement of stocks and dairy development, and for matters relating to Delhi Milk Scheme (DMS) and National Dairy Development Board (NDDB).	Convergence with existing programs on Animal husbandry and dairy development, increased budget for dairy development in targeted states, opportunity for pilots & studies for deriving learning	<ul style="list-style-type: none"> Create opportunities for convergence with national/state programs on Animal husbandry and dairy development Ensure clarity on project component for other stakeholders Coordination with NDDB and state governments for implementation
A.3	World Bank	Project Lender	The World Bank is the primary lending agency for NDSP Phase-II. Upon approval of the project, a financial agreement will be drawn between the Government of India (DEA and DAHD) and the World Bank for receiving the funds. These funds will be received by DAHD and released to NDDB based on the action plan and project progress.	World Bank's reputational risk is involved in case project is not delivered in line with ESS standards.	<ul style="list-style-type: none"> Seeking periodic Project E&S performance from NDDB through agreed monitoring and reporting requirement
B	Project Affected Parties				
B.1	Local community	Dairy Farmers including graziers/Milk Producers	Dairy farmers are the major dairy producer groups in the villages. As per the Agriculture Census definition, farmers are small, marginal, medium, semi medium and large farmers depending upon the size of the operational land holdings. In case of Dairy Farmers, For the purpose of the assessment, small holder dairy farmers with a herd size of 1-3 animals, medium farmers as those with 3-5 animals and large farmers as those with more than 5 animals is taken.	Several direct and indirect positive impacts are anticipated at farmer level such as enhanced dairy extension services for existing members of DCS/MPP and for new farmers in untapped areas, doorstep service delivery, value added services, timely payment, awareness on quality milk and scientific calf rearing practices, stable and better rates for milk supply, reducing monopoly of private agencies in untapped area, improved access to other dairy related government schemes, improved access to awareness programmes on animal health/ disease control/ silage production/ fodder conservation/safe milking practices, access to community milking parlour etc.	<ul style="list-style-type: none"> Seek information on advantages of forming new DCS/MPP and becoming members; Information on awareness program on dairy related extension services; Information on available government schemes related to dairy; Awareness on benefits, eligibility criteria and procedures to access dairy related government schemes and allied extension services; Knowledge about benefits of dietary supplements and scientific calf rearing Information on Training and capacity building opportunities for farmers under the project; Awareness on disease management and veterinary services at doorstep; Awareness and access to functional GRM of the project.
B.2	Local community	Customer/retailers / distributor of milk & milk products/ Milk Booths	Retailers / Distributors of milk and milk products are the endpoint of dairy supply chain who procure milk from either federation, milk union or private dairy companies and sell it in the market. Customers are the end-users of the milk and milk products, who purchase these from the retailers/distributors.	Expanded milk product portfolio, increased shelf life of milk products, better quality milk availability, increased sale and business opportunity for retailer and distributors	<ul style="list-style-type: none"> Awareness on milk quality and safety issues Awareness on availability of milk and milk products adhering to high quality norms Prior information on engagement with retailers/ distributor/ wholesalers as part of market survey and brand development program under the project Access to functional GRM of POIs
B.3	Local Village group	Dairy Cooperative Societies (DCS) / Milk Pooling Points (MPP)	The DCS is the lowest tier of the cooperative structure at the village level. DCS is one of the major information dissemination centers in the village. The process followed for	Positive impacts envisaged in terms of increased number of DCSs/MPPs, getting untapped areas into organised milk market, strengthening DCS/MPP with required infrastructure	Key engagement needs at DCS/MPP level include; <ul style="list-style-type: none"> Prior information to DCS and members on camps proposed to be organized during the specific

S No	Stakeholder Category/Group	Specific Stakeholder	Overview/Profile	Likely impacts from Project investment	Specific Engagement/Information Needs
			<p>registration of cooperatives varies from state to state. Rules stipulating minimum number of members, share capital and quantity of milk to be procured and the set of bylaws to be adopted are generally prescribed as per the State Cooperative Acts.</p> <p>Similar to DCS, milk pooling points are where milk is collected from dairy farmers and is sent to chilling centers. Milk Pooling points comes under private dairy companies and are the lowest tier of the structure.</p>	(like ICT based AMCS, roof top SPV system with battery back-up, mastitis testing kit), access to awareness program on dairy services for DCS/MPP members, etc.	<p>month/ quarter by related department (e.g. veterinary hospital)</p> <ul style="list-style-type: none"> ■ Awareness camp on benefits of community milking centre, milking machines; ■ Training/Capacity Building on milk quality, milk production, animal feeding practices, fodder production & conservation, biogas; ■ Organise camps to address all vaccination, animal health and first aid related queries and needs of the DCS/ MPP' ■ Awareness program on scientific calf rearing practices and other dairy related topics; ■ Provide information on ways to access AMCS/digital tracking system and quality testing equipment's at DCS/MPP level for bringing more transparency in milk procurement system.
B.4	Dairy Sector Workforce	Village level functionaries such as AI technician, DCS secretary, Pashu Sakhis, Sahayaks, Animal Health Workers and other resource persons	These are workers employed by the formal dairy and animal husbandry supply chain for rendering services at the village level. AI technicians provide assistance for breeding and related activities, while animal health workers focus on disease prevention, cure and emergency response. DCS Secretary is a salaried worker employed by the DCS for taking care of its day to day collection activities.	Employment/income generation opportunities under the project for village level functionaries, training and capacity building opportunities, incentives, empowerment, increased area for interventions.	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project interventions and benefits; ■ Information on training and capacity building opportunities for village level functionaries; ■ Clarity on incentives and conditions of work for the functionaries
B.5	Dairy Sector Workforce	Workers engaged in operating BMCs, Chilling Plant, Dairy Plant, Milk Unions	<p>Chilling plants/BMCs come under milk unions where milk directly comes from DCSs, is weighed, tested, and then transferred to the bulk milk coolers where the temperature is maintained. Dairy Plants are responsible for manufacturing dairy products like milk, paneer, ghee, butter milk, milk based sweets, etc. The DMUs have the dairy processing plants which are affiliated to a State Dairy Federation. In States of Jaharkahnd and Himachal Pradesh, the Federation also owns the milk plant/s.</p> <p>The workers engaged in these plants include permanent, contractual, casual and daily wage workers. Their work ranges from driving milk tankers, collecting milk cans, lab in-charges, housekeeping and management of the facilities.</p>	Employment/income generation opportunity creation under the project at different level for the local workforce, training and capacity building opportunities, incentives, empowerment, increased area for interventions.	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project interventions and benefits; ■ Information on training and capacity building for workers engaged on BMSc/Chilling plant, dairy plants; ■ Clarity on incentives and conditions of work ■ Prior Information on potential employment opportunities for local workforce of POIs ■ Access to functional GRM of POIs
B.6	POIs	State Milk Federations,	State milk federations are primarily responsible for marketing and decision- making related to the functioning of the three-tiered cooperative structure across states. The role definition varies from state to state. They facilitate to set targets for the various milk unions for marketing and processing of various products.	Enhanced quality milk supply in states, funds availability for dairy promotion activities, training and capacity building opportunity, better equipped to handle enhanced competition with private players in the state, improved channel for delivery of dairy services.	<ul style="list-style-type: none"> ■ Information on details of NDSP Phase project-II components and sub-components (eligibility criteria, funding pattern, pilots programmes, etc.); ■ Information on applicable E&S requirements/ compliances during project implementation; ■ Mechanism for ensuring convergence with other dairy development schemes in the state ■ Seeking regular project implementation update from POIs
B.7	POIs	Milk Unions/Milk Plant,	Milk unions primarily work under the guidance of the state level federations and are responsible for the procurement and processing of milk. Nevertheless, the level of dependency and autonomous functioning of the milk unions varies across the states. The milk unions though guided by the state	Project interventions will lead to positive impact for Milk unions and their milk plants such as increased membership, Increased milk collection, increased income for members, empowerment of milk unions, leadership development, enhanced technical and managerial capacity, higher production of quality milk and milk products, enhanced competition, plugging infrastructure gaps requirement etc.	<p>Key engagement needs at Milk union level will include:</p> <ul style="list-style-type: none"> ■ Information on details of NDSP Phase-II components and sub-components (eligibility criteria, funding pattern, pilots programmes, proposal preparation and submission process, approval process etc.);

S No	Stakeholder Category/Group	Specific Stakeholder	Overview/Profile	Likely impacts from Project investment	Specific Engagement/Information Needs
			federations on certain issues follow their own approach to increasing the participation of the producers.		<ul style="list-style-type: none"> Strengthening governance at milk union level through targeted capacity building program; Access to project resources for addressing capacity and technical constrains for improving coverage and milk collection; Training and awareness programme for the staff deployed in various department of Milk Unions; Information on applicable Environment & Social requirements/compliances that will be triggered during project implementation; Awareness on Health and Safety measures for workers
B.8	POIs	Milk Producer Companies/Farmer Producer Organization (FPO)/Milk Producer Organization formed by SHGs,	<p>A Producer Company (PC) is a company, to which provisions contained in Part IX-A of the Companies Act 1956, apply.</p> <p>A PC combines the institutional and ideological strengths of cooperatives – ownership limited to users; limited return on shares; no public trading of shares; returns being patronage based and not on capital – with the flexibility and autonomy available under Company Law. Muktaa and Maalav are two Producer Companies operating in the State of Madhya Pradesh.</p>	Positive impact envisaged in terms of improved milk collection, increased milk supply, increased sale and profitability, rise in MPP membership, improvement in delivery of dairy services to milk producers/members, enhanced supply of quality milk and milk products	<ul style="list-style-type: none"> Awareness on proposed intervention under NDSP Phase-II project for milk producer companies so as to ensure better access to the program; Clarity on the scope and areas for sub-project planning Improved capacities and handholding support for preparation of sub-project plans and their implementation Information on applicable E&S requirements/compliances that will be triggered during implementation; Awareness on Health and Safety measures for Workers
C	Other Interested Parties				
C.1	Institutions	ICAR/Agriculture University/ Regional Fodder Station/ Veterinary College	<p>Indian Council of Agricultural research (ICAR) & Agricultural Universities are involved in the R&D for various aspects of animal nutrition including feed and fodder cultivation. They are involved in developing new varieties of fodder crops that are being notified by Government of India for bringing them to seed production chain.</p> <p>Veterinary Colleges are involved in R&D, training and capacity building regarding all aspects of animal husbandry and dairy supply chain. They are also involved in development and implementation of pilots.</p>	sharing of technical knowhow, capacity transfer, knowledge exchange, support and exposure to project supported pilots and studies	<ul style="list-style-type: none"> Awareness on NDSP Phase-II project interventions, specifically around capacity building and technical interventions including pilots & studies Information on potential engagement opportunities as training and capacity building expert agency; Information on Training needs assessment and development of training curriculum for project
C.2	Veterinary institution/resource person/service provider	Veterinarian/ Veterinary hospitals/clinic at district/block/ panchayat level	The district/block/GP level veterinary institutions are one of the primary veterinary service providers to dairy farmers. Apart from cattle and buffalo health, the Veterinary Institutions are mandated to deal with the veterinary health care of the other livestock too. Usually there is a Veterinary Dispensary at the village level, which is under a Veterinary Hospital at the block/district level. Veterinary Polyclinics have larger set-ups and act as referral centres.	Greater convergence with project interventions, reduced disease load (e.g. bovine mastitis) on animals, improved efficiency of their own services, capacity building and collaboration opportunity.	<ul style="list-style-type: none"> Awareness on NDSP Phase-II project interventions Clarity on procedures for accessing support/services under the project for dissemination among dairy farmers/community members; Awareness on potential collaboration with project interventions like Training and capacity building on EVM, Disease surveillance and prevention, organise awareness camps on animal health and related government schemes available for farmers.

S No	Stakeholder Category/Group	Specific Stakeholder	Overview/Profile	Likely impacts from Project investment	Specific Engagement/Information Needs
C.3	Transportation service provider	Transport service provider (Milk & milk products/seed/fodder etc.)	Transportation in dairy supply chain involves milk transportation from DCSs/MPPs to BMCs/Chilling Centre/Milk Plants by different types of milk transport vehicles, transportation of packaged milk & milk products from milk plant to distributors/wholesalers/retailers/milk booth etc., transportation of feed/fodder/any other required resource etc.	Impact on air environment from emissions from the vehicles engaged by POIs including those engaged from third parties for transportation of milk & milk products, feed & fodder etc. Impact on community health & safety from plying of vehicles used by POIs	Awareness for drivers and vehicle owners on the issue of community health & safety and emission norms on CPCB vehicular Emission standards
C.4	Animal Nutrition establishments	Cattle Feed Plant/TMR Plant / Seed Processing/ Silage manufacturers	Cattle feed plants work under state federations and the manufacturing process consists of reduction of size and blending of the various ingredients. The cattle feed plants manufactures different varieties of cattle feed and mineral mixture which are sold to farmers through the network of dairy cooperatives. Total Mixed Ration (TMR) plants proposed under NDSP II will manufacture Total Mixed Ration considering the requirements of animals in different stages of lactation.	Higher production in view of higher fodder demand, increased income opportunities for farmers due to higher demand of raw material for fodder production, better feed quality, improved access for members, improved income opportunity for local workforce for additional employment opportunities in plants.	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project interventions ■ Prior information on Training and capacity building opportunities on feed production and Total Mixed Ration (TMR) ■ Awareness on regulatory compliance requirements
C.5	Regulatory compliance department	FSSAI (Food Safety and Standards Authority of India)	A food safety officer/ inspector inspects the food processing entities, manufacturing companies, restaurants, collects samples for investigating the quality of food ingredients and preservatives being used in the food product to be sold in the market.	Better adherence to compliance with food quality and safety norms, contribute in promoting quality product through certification and audits.	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project and measures for improved safety ■ Seeking food safety compliance reports ■ Coordination with POIs for certification and safety audits
C.6	Regulatory compliance department	Other Government department like Labour Department, Environment department etc.)	These include Government Departments, which are responsible for various Environmental and Social safeguards/regulations such as the State Pollution Control Board, Environment Department, Labour Department etc. The role of these departments will be to provide ancillary services and ensure Environmental and Social resilience of the Dairy Supply Chain.	Better compliance to applicable Environment & Social regulatory norms through project.	<ul style="list-style-type: none"> ■ Process of obtaining applicable license and permits ■ Seeking periodic compliance reports ■ Measures in place for ensuring regulatory compliance under the project ■ Coordination with POIs for convergence with other labour welfare schemes
C.7	Civil society	NGOs	These are local non-governmental institutions which may be involved in assisting dairy farmers for improving animal health and productivity through different programs. Their role and functions may differ in different states depending on the local requirements. They usually receive funding from multinational agencies or philanthropic initiatives or Corporate CSR. They may also be involved in Training and Capacity Building.	Social mobilisation support, contribute in better access to project services for milk producers	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project interventions ■ Procedures for accessing service and support to facilitate inclusion of dairy farmers specially women and other vulnerable groups ■ Access to functional GRM for the project
D	Disadvantaged/Vulnerable Groups				<ul style="list-style-type: none"> ■
D.1	Local community	Women members of community engaged in dairy	Women groups includes women who are either involved actively in the functioning of the DCS and extension services or those involved in cattle rearing as a primary household chore. The actual role and participation of women may vary across these two spectrums and largely depends upon education levels, prevailing gender dynamics as well as the opportunities available in the region.	Project aims at encouraging 50% women in each participating groups resulting in several positive impacts such as: increased women participation, greater women participation in entrepreneurship development program and DCS/MPP functioning, leadership opportunities for women members, enhanced opportunity and ways to access veterinary services/extension, training and capacity building opportunity, access to cleaner & low cost fuel reduced drudgery for women members of household, possible GBVH/SH concerns during project implementation	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project ■ Awareness on women centric project interventions and benefits under the project ■ Information on ways for enhancing participation of women farmers and entrepreneurs ■ Awareness on eligibility criteria for accessing project support ■ Awareness on trainings and capacity building opportunities available with project ■ Awareness on eligibility criteria for employment as Lady Extension Officer in project ■ Access to functional GRM for the project
D.2	Local community	Scheduled Caste community	The participation of the SC population in dairying could be limited owing to some factors like lack of landholding, unavailability of seed capital, lack of access to monetary resources, access to	Positive impact anticipated for SC community as well in terms of their increased participation in project, enhanced access to DCS/MPP/Milk Unions, greater dairy activities	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project ■ Awareness on activities and likely benefits focused on vulnerable groups under the project

S No	Stakeholder Category/Group	Specific Stakeholder	Overview/Profile	Likely impacts from Project investment	Specific Engagement/Information Needs
			credit, lack of alternate sources of income etc. as noted in consultation.	related income and empowerment, awareness on quality milk and scientific calf rearing practices, improved access to other dairy related government schemes, improved access to awareness programmes on animal health/ disease control/ silage production/ fodder conservation/safe milking practices, access to community milking parlour etc.	<ul style="list-style-type: none"> ■ Information on additional provision for enhancing participation of SC/ST farmers and entrepreneurs ■ Awareness on eligibility criteria for accessing project support ■ Awareness on trainings and capacity building opportunities available with project ■ Access to functional GRM for the project ■ Information on supplementary livelihood benefits for marginal/small farmers including SC/ST farmers under the Project
D.3	Local community	Scheduled Tribe	The participation of the ST population in dairying is dependent on several factors related to overall development of dairying across regions. The limited access to land, as well as not taking up dairying as a traditional occupation, appears to be a hurdle for their participation. Consultation across the states showed a common pattern, wherein limited understanding of dairying and the unavailability of seed capital, lack of access to monetary resources, access to credit, lack of alternate sources of income are some of the concerns raised in stake holder consultations.	Positive impact anticipated for ST community as well in terms of their increased participation in project, enhanced access to DCS/MPP/Milk Unions, greater dairy activities related income and empowerment, awareness on quality milk and scientific calf rearing practices, improved access to other dairy related government schemes, improved access to awareness programmes on animal health/ disease control/ silage production/ fodder conservation/safe milking practices, access to community milking parlour etc.	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project ■ Awareness on activities and likely benefits focused on vulnerable groups under the project ■ Information on additional provision for enhancing participation of SC/ST farmers and entrepreneurs ■ Awareness on eligibility criteria for accessing project support ■ Awareness on trainings and capacity building opportunities available with project ■ Access to functional GRM for the project ■ Information on supplementary livelihood benefits for marginal/small farmers including SC/ST farmers under the Project
D.4	Local community	Landless labours/small holder dairy farmers/Agriculture labourer	This group involves those dairy farmers who have no land and limited engagement in dairying including agriculture labour.	Enhanced opportunities for supplementary income, better access to dairy services, empowerment, additional measures for ensuring benefits to vulnerable groups, bring greater transparency, accountability and social inclusion	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project ■ Awareness on activities and likely benefits focused on vulnerable groups under the project ■ Awareness on eligibility criteria for accessing project support ■ Awareness on trainings and capacity building opportunities available with project ■ Access to functional GRM for the project ■ Information on supplementary livelihood benefits for marginal/small farmers under the Project
D.5	Local community	Dairy farmers with disabilities	This group involves those dairy farmers who may be differently abled and may require specialized/targeted interventions for improving their dairying practices.	Enhanced opportunities for supplementary income, doorstep access to dairy services, empowerment, bring greater transparency, accountability and social inclusion	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project benefits ■ Prior information and convenient option for taking part in training and capacity building program; ■ Sensitisation of service providers for ensuring physical access to project support ■ Information on the scope for doorstep delivery of project services like distribution of feed, fodder, AI services etc. ■ Access to functional GRM for the project

4. STAKEHOLDER CONSULTATIONS SUMMARY AND FEEDBACK RECEIVED

4.1 Stakeholder Consultations coverage

As part of ESMF study, a number of consultations and focused group discussions were undertaken and these stakeholder groups can be broadly categorized as;

- Representatives of State level stakeholders like Federations, Animal Husbandry and Dairying Department etc;
- Representatives of District level government departments like Cooperative Registrar, Veterinary Department/Hospitals, Feed plants etc;
- Representatives of Milk Unions & Milk Plants, BMCs, Chilling Plants etc.;
- Members of Village level institutions like DCSs, Milk Pooling Points
- Members of Village level community groups such as farmers groups, vulnerable groups, women groups etc.

Stakeholders covered in the consultations are listed in **Annexure A** of this document.

4.2 Methodology for stakeholder consultation

Identification of stakeholders for consultations were limited to 15 districts across five out of the six project states in the study area as per the scope for ESA study for the project. Three districts were selected in each of the five states based on predefined criteria, which include 1) Presence of Dairy Cooperatives and Milk Unions, 2) Milk Procurement, 3) Cattle and buffalo population, and 4) Proportion of indigenous people. Selected districts for study are listed in the table below:

Table 4-1 Sampled districts for study area across the five states

State	District
Himachal Pradesh	Mandi, Kangra, Shimla
Uttarakhand	Hardwar, Udham Singh Nagar, Dehradun
Madhya Pradesh	Bhopal, Shajapur, Sagar
Jharkhand	Garhwa, Palamu, atehar
disha	Baleswar, Cuttack, Bhadrak

As part of methodology for carrying out the ESA study, a survey of 7500 household with milk producers at selected villages of 15 districts are being carried out. Total 10 villages in each selected districts were identified based on cattle and buffalo population at the village level. The other selection criteria is presence of indigenous population, women in dairying, POIs, extant of dairying infrastructure. Village selection were done in consultations with POIs in the selected districts. Further household's selection in the villages has also been carried out in a way to capture the families engaged in dairying, or prospective beneficiaries, based on house listing with the local community and other factors such as Tribal and vulnerable population, APL/BPL, Women headed households, Small/medium/ large animal-holding. Besides household's surveys, a survey of 3000 consumers is also being carried out across two urban centers for each of the fifteen selected districts.

The initial list of stakeholders was prepared in discussions with NDDDB which was updated after the field-testing process. Based on this, a preliminary list of stakeholders was developed along with FGD (Focused Group Discussion) checklists for each stakeholder group, in order to guide the consultations. The consultations were undertaken following three key steps;

- Step-I: To explain the purpose of the consultation and to share relevant Project information,

- Step-II: Implement questions protocol and record the responses, and
- Step-III: Seek issues or concerns/apprehensions of the stakeholders relevant to the Project and /or context.

This sections section captures a summary of the consultations held with key stakeholders groups across the five states to inform this SEP. More than 170 stakeholder groups across the sampled districts were covered across the five states for the purpose. Detailed minutes of these consultations are provided in **Annexure-B**.

Table 4-2 Stakeholders Consultation Summary

Key Stakeholder Group	Major points discussed/observed/feedback received in the consultations	Available project interventions/measures respond to concerns
State Milk Federations	<ul style="list-style-type: none"> ■ Lack of infrastructure resources (like refrigerated vans/insulated tankers, equipment for milk collection etc.), were common issues noted across the consultations with Milk Federation across the states; ■ Infrastructure facilities at milk plants/ milk unions/DCS are quite old and needs upgradation; ■ The software required for AMCUs at DCSs level should be provided with permanent licenses without the need for constant renewals for which the renewal charge is currently born by DCSs ■ Shortage of veterinary doctors at district/block level was highlighted that is causing lack of access to animal health care services for dairy farmers ■ The issue of using raw water in milk plants were reported in some states. It was also stated that there is no budget for provisioning of filtered/treated water use in milk plants; ■ Limited operational BMCs in some state leading to overburdening facilities during flood season, which in turn encourages dairy farmers to sell milk in unorganised market. 	<ul style="list-style-type: none"> ■ Component A: Enhancing Institutional Capacity and Sustainability – having sub-component for strengthening Institutional capacities in the area of monitoring & coordination of sub projects, extension & awareness generation, training & capacity building ■ Component B1 have provision for 100% grant for AMCS installation ■ Provisioning for stipend to village level functionaries including LEO under the project to improve the frequency of the visits by village level functionaries ■ Establishment of new BMCs and augmentation of existing BMCs with better infrastructure such as Solar Photovoltaic (SPV), Thermal Storage System (TSS), instant milk chillers, are proposed under the project.
Milk Unions/Milk Plants	<ul style="list-style-type: none"> ■ Milk unions reported key challenges in terms of volume of milk procurement in view of prevailing competitors in the markets offering better rates to dairy farmers. ■ In states like Himachal and Jharkhand, two tier system of milk cooperatives were noted wherein DCSs at village level are directly managed by state federation. Milk unions at district level don't exist; ■ Ground water using tube well is being used for meeting water requirement of the plant, without checking applicability of required permission from CGWB. 	<ul style="list-style-type: none"> ■ Dairy plant improvement program is proposed under Component B of the project will include intervention like Automation of Existing Dairy Plant (Dairy premises, dairy plant, automation of dairy plants, modernise QC laboratory, Introduction/up-gradation of Food Safety Management System (FSMS) (ISO 22000/ FSSC 22000 and/ or CAS MMP); Introduction of Other

Key Stakeholder Group	Major points discussed/observed/feedback received in the consultations	Available project interventions/measures respond to concerns
	<ul style="list-style-type: none"> At several plants, requirement for investing in plant equipment, renovation etc. were highlighted. 	<p>International Management Systems (ISO 14001/ ISO 50001/ ISO 45001 / IMS)</p>
Dairy Cooperative Societies (DCSs)/ Milk Pooling Points	<ul style="list-style-type: none"> Soft renewal cost for AMCS at DCS, are born by DCS which is considered as challenge and expect for a provision reimbursement of this expense. Many DCS covered in consultations mentioned about the issue of paying high electricity bill because of having commercial meter installed in states like Himachal Pradesh. Payment is done through DCS's account and therefore members are keen to go for option for electricity supply with lessor electricity bills; Several DCSs reported lack of infrastructure such as milk analyser, AMCS etc. Significant number of milk producers are registered in the DCSs/MPPs of their village. However milk supply to organised market (DCSs/MPPs) is relatively lower in the villages wherever alternate milk collection arrangement by local milkmen/<i>Doodhiyas</i> is available; 	<ul style="list-style-type: none"> <i>Under Component B1: Strengthening the dairy Supply Chain System</i>, DCS are proposed to be equipped with required infrastructure support like AMCS, milk collection accessories, milk cans, electronic milk testing equipment. Renewable energy solutions proposed in the projects eg. Rooftop Solar PV systems, solar powered instant milk chillers etc.
Dairy farmers Groups	<ul style="list-style-type: none"> DCS price, act as a benchmark of milk prices. Milk producers at times, sell milk to private players also to take benefit of price, however they continue to pour milk to the DCS to remain its member and get associated benefits. Lack of access to veterinary services like artificial insemination, vaccination & disease control, qualified veterinary doctors, cattle feed etc. for dairy farmers across the states in varying degree Cost of cattle rearing is major challenge for small dairy farmers especially for those whose primary source of income is attached with this sector. Increasing cost of fodder and decreasing access to open grazing area, further aggravates this issue for small dairy farmers; Expectation for cattle feed & fodder availability at cheaper price. Lack of training and capacity building opportunity for dairy farmers to get knowledge on feed, fodder, milk production etc. 	<ul style="list-style-type: none"> New DCSs will be formed in untapped areas under the project. Improved access to extension services and veterinary related to animal health and fodder are proposed under the project. Measures are proposed to ensure availability of quality fodder. Training and capacity support to dairy farmers, extension staff are planned.
Veterinary Hospital	<ul style="list-style-type: none"> Lack of accessibility to veterinary hospitals were highlighted in consultations and lack of adequate number of veterinary care centre were identified as main cause. 	<ul style="list-style-type: none"> Pilot on control of Bovine Mastitis & EVM under the project, will bridge the gap of veterinary care services to some extent in the project intervention area.

Key Stakeholder Group	Major points discussed/observed/feedback received in the consultations	Available project interventions/measures respond to concerns
Cattle Feed Plant	<ul style="list-style-type: none"> Mostly workers engaged in plants are on contractual workers. Required raw materials such as Deoiled Rice Bran (DORB), Rice Polish, Grain, Rape Seed, and Makka, are procured from the National Cooperative Dairy Federation of India Limited through tendering process. Cattle feed procured by respective Milk unions of the state are provided to farmers through DCSs and BMCs. 	<ul style="list-style-type: none"> Setting up of new TMR plants are proposed under the project., Introduction of pilots on community managed fodder plantations are proposed.
Women members of community engaged in dairy	<ul style="list-style-type: none"> Women groups includes women who are either involved actively in the functioning of the DCS and extension services or those involved in cattle rearing as a primary household chore. The actual role and participation see a variation across these two spectrums and largely depends upon education levels, prevailing gender dynamics as well as the opportunities available in the region. The payment from DCS is usually collected by men only and they decide how to utilise that money. Women do not know how much payment they are getting from DCS in most cases. 	<ul style="list-style-type: none"> Expansion of village coverage focussing increased participation of women dairy farmers in the formal dairy supply chain; Lady Extension Officer (LEO) in the project will work as link between the POI and milk producers for various extension activities. Specific measures and incentives to improve their participation an agency and improved access of women farmers to extension services are planned.
Scheduled Caste/Scheduled Tribe community members	<ul style="list-style-type: none"> The participation of the SC/ST population in dairying is dependent on several factors related to overall development of dairying across regions. The limited access to land, as well as not taking up dairying as a traditional occupation, appears to be a hurdle for their participation. Limited understanding of dairying and the unavailability of seed capital, lack of access to monetary resources, access to credit, lack of alternate sources of income are some of the concerns raised in stake holder consultations. 	<ul style="list-style-type: none"> The project aims to enhance inclusion in the milk value chain of women and small holder livestock farmers and improve their access to related services and support Expansion of village coverage will also include SC/ST dairy farmers in the formal dairy supply chain and improve livelihoods.
Marginal and Small farmers producing fodder	<ul style="list-style-type: none"> Farmers producing fodder and selling it either locally or to the milk unions. These farmers have less than 2 ha of landholding and are sensitive to rising seed prices; Most of these farmers either produce fodder for self-consumption or sell it to other local farmers. 	<ul style="list-style-type: none"> Project will support production of quality fodder seeds and pilot community-level green fodder production; Interventions will aim to make dairying viable for the small holder dairy farmers.

Common issues identified across the five states for dairy farmers were regarding the high input cost for cattle rearing, lack of access to animal health services, higher cost for buying stall feed, lack of accessibility to prevailing government schemes on dairy sector, lack of knowledge on scientific calf rearing practices etc. DCSs/MPPs members raised several issues around infrastructure support in terms of AMCSs, milk analyzer, lack of services from their respective DMUs etc. POIs (federation and DMUs) also mainly highlighted the issue of lack of work force in their operation, lack of funds and other infrastructure support, which is lagging across their operations at milk plants, BMCs. NDSP

Phase-II interventions will be addressing most of the concerns raised by Stakeholders in the consultation.

5. PROPOSED STAKEHOLDER ENGAGEMENT STRATEGY

5.1 Principles

The Stakeholder Engagement Plan (SEP) shall be informed by a set of principles defining its core values underpinning interactions with identified stakeholders. Common principles based on “International Best Practice” include the following:

- Commitment is demonstrated when the need to understand, engage and identify the community is recognized and acted upon early in the process;
- Integrity occurs when engagement is conducted in a manner that fosters mutual respect and trust;
- Respect is created when the rights, cultural beliefs, values and interests of stakeholders and affected communities are recognized;
- Transparency is demonstrated when community concerns are responded in a timely, open and effective manner;
- Inclusiveness is achieved when broad participation is encouraged and supported by appropriate participation opportunities;
- Trust is achieved through open and meaningful dialogue that respects and upholds community's beliefs, values and opinions.

The SEP is an overarching guidance document that will need to be implemented throughout the project lifecycle. Certain sections and templates will need to be maintained by NDDDB as a live document and additional measures, engagement strategies will be incorporated through the project cycle based on the experience gathered on the effectiveness of the existing methods of engagement and the implementation strategies. The engagement strategy proposed in this SEP is informed by mapping of relevant stakeholder groups identified on the basis of the review of project DPR and feedback received through extensive field consultations undertaken as part of the study.

5.2 Additional Safeguards

The stakeholder engagement strategy will consider additional safeguards under specific circumstances during project implementation that includes:

- *Voluntary land procurement*: POIs will follow additional stakeholder engagement safeguards mentioned in Resettlement Policy Framework (RPF) that will be developed as part of overall ESMF of the project;
- *Livelihood Impact*: POIs will follow additional stakeholder engagement safeguards mentioned in Resettlement Policy Framework (RPF) that will be developed as part of overall ESMF of the project;
- *GBVH Safeguards*: additional safeguards w.r.t stakeholder engagement under Gender based violence & harassment (GBVH) Prevention and Response Plan will be followed during project implementation
- *Indigenous People safeguards*: Indigenous People Policy Framework (IPPF) developed as part of ESMF will be referred to, while engaging with indigenous people under the project by POIs.

5.2.1 Voluntary Land Procurement

Very limited number of project interventions (such as TMR plant, pilot on community milking center etc.) will require additional land footprint. It is also observed that mostly POIs possess excess land and POIs will ensure at the time of submitting sub project plan (SPP) that required land parcel is encumbrance free. While engaging with land owners for any additional land footprint requirement against the SPP, POIs will need to ensure that informed consent of land owners.

5.2.2 Livelihood Impacts

If there are any negative impact on livelihood of surrounding community caused by restriction of land use due to project activities, such situation will be dealt by POIs in accordance with applicable ESS-5 requirements that will be included in Resettlement Policy Framework (RPF) of ESMF document that will be developed for the project. In such situation, specific requirement around stakeholder engagement as per ESS-5 includes;

- Engagement with affected community/individual be ensured through the process of stakeholder engagement as described in ESS-10;
- Decision-making processes related to resettlement and livelihood restoration will include options and alternatives from which affected persons may choose
- Disclosure of relevant information and meaningful participation of affected communities and persons will take place during the consideration of alternative project designs, and thereafter throughout the planning, implementation, monitoring, and evaluation of the compensation process, livelihood restoration activities, and relocation process.

5.2.3 GBVH Considerations

As described in ESS10, the SEP is recommended to include SEA/SH-specific considerations regarding the process of conducting appropriate consultations. This should consider key aspects like elements like survivor centered lens, building on existing local knowledge, be evidenced-based, minimize harm to women and girls etc. Project will follow the GBVH specific stakeholder engagement process that will developed in form of GBVH Prevention & Response plan as part of ESMF document of the project

5.2.4 Indigenous Peoples Safeguards

Engagement mechanism with indigenous people (IP) will consider specific requirements mentioned under ESS-7 like undertake consultation with IP in culturally appropriate and gender and inter-generationally inclusive manner, involving IP's representative bodies and organization, providing sufficient time for decision for decision making process etc. POIs will refer to Indigenous People Policy Framework (IPPF) for more guidance on engaging with IP community which will developed s part of ESMF of the project.

5.2.5 Reprisal Risks

As per World Bank Commitments against Reprisals; reprisal and retaliation against those who share their views about Bank-financed projects is not tolerable. Any form of intimidation against people who comment on Bank projects, research, activities and their impact, goes against World Bank's core values of respecting the people we work for and acting with utmost integrity. Responsible parties for SEP implementation will pay due attention to this commitment of WB during implementation period.

5.3 Stakeholder Engagement Methods

The following mechanisms will be put in place by NDDDB across the states/districts where project will be implemented, for engagement with project stakeholders based on the purpose of engagement.

One level of consultations with some stakeholder groups have been carried out in sampled districts of five states that has informed preparation of this SEP document. NDDDB will be required to drive the process of organizing detailed stakeholder engagement as per the engaged method discussed in the table given below. The feedback received through this engagement process should be suitably integrated in planning and implementation of the project by implementing agencies.

Table 5-1 Stakeholder Engagement Method

Purpose of Engagement	Type of Engagement	Description of Engagement Method
Information Dissemination (Information Education Communication)	Wall paintings and Slogans	In the targeted villages identified for project interventions with project highlights relevant for milk producers in the villages
	Notice boards and Signages	Stakeholder specific/ precautionary notices and signage
	TV insertions	On project information, benefits, activities proposed, alignment descriptions and routes, duration and timing of activities, grievance mechanisms
	Radio Samvad/information capsules	On project information, eligibility criteria for availing project benefits, duration and timing of activities, grievance mechanisms
	Print-Newspaper, Newsletter /leaflets/ Pamphlets	On project information, site specific interventions proposed, duration and timing of activities, grievance mechanisms
	Digital information repository/ Website/ Portals / Social Media (like What's app, socialization through government website on related topic) /	Detailed project information, site specific interventions proposed, safeguard measures proposed and disclosure of instruments developed, detailed schedule of duration and timing of activities in various localities, grievance mechanisms
Consultation and Participation	Public hearings/ Open forums/ town-hall meetings	Communication on proposed project activities with larger groups in the presence of representatives of implementing agencies, on measures in place to minimize adverse impacts/ inconvenience, provide forum for people to provide feedback and suggestions and air their opinions- views
	Focus Group Discussions	Communication on proposed project activities with small homogenous groups in the presence of representatives of implementing agencies, on measures in place to minimize adverse impacts/ inconvenience, provide forum for people to provide feedback and suggestions and air their opinions- views
	Information Camps/ Site Offices	Availability of all site-specific information apart from larger project details, details of works proposed/ undertaken, designated site/ camp specific focal point for providing information, receiving feedback/ grievances, grievance mechanisms in place for the project

Purpose of Engagement	Type of Engagement	Description of Engagement Method
	One-on-One and formal small group meetings/ discussions	With stakeholders crucial for getting community support like FPO, elected representatives of gram panchayats, community leaders, media personnel for briefing about the project, seeking support for wider engagement, addressing conflicts and on-boarding of communities
Feedback Mechanisms	Telephone Helpline / emails	Centralised helplines/ toll-free numbers and e-mails for providing information and receiving feedback/ registering grievances
	Mobile Applications/ Other Digital Interface	Mobile applications and other digital platforms for receiving project specific information
	Client survey/ Citizens report Cards/ Social Audit	Periodic client perception surveys and community monitoring using different tools/ methods on a sample basis across the project areas with impacted communities
	Suggestion box	At all project sites/ ward offices/ other convenient spots for inviting project specific suggestions, with focal points designated for each suggestion box

5.4 Proposed Stakeholder Consultation Framework

The following table presents the proposed consultation framework for engagement and information disclosure which can be further developed into a stakeholder group specific consultation plan. It also spells out the timing of the intervention, target audience of the engagement and the parties responsible for it at various stages of the project cycle.

Table 5-2 Proposed Stakeholder Consultation Framework

S No	Main Target Stakeholders	Engagement and Communication Need	Proposed Engagement and Disclosure Method	Timing of engagement	Responsible Parties
1	Dairy Farmers/Milk Producers	<ul style="list-style-type: none"> ■ Seek information on advantages of forming new DCS/MPP and becoming members; ■ Information on awareness program on dairy related extension services; ■ Information on available government schemes related to dairy; ■ Awareness on benefits, eligibility criteria and procedures to access dairy related government schemes and allied extension services; ■ Knowledge about benefits of dietary supplements and scientific calf rearing ■ Information on Training and capacity building opportunities for farmers under the project; ■ Awareness on disease management and veterinary services at doorstep; ■ Awareness and access to functional GRM of the project. 	<ul style="list-style-type: none"> ■ IEC Activities (Wall writing, pictorial messaging etc.) ■ Newsletter/ leaflets/ Pamphlet ■ Extension materials ■ Consultations, Meetings, FGDs ■ Meetings with panchayats ■ Social Media (like WhatsApp) ■ Advertisements through mass media like newspapers, television, radio samvad etc. ■ Training and capacity building ■ Information camps ■ GRM <p>Local language and culturally appropriate platform of the community should be considered in engagement process.</p>	<ul style="list-style-type: none"> ■ Once by NDDB through Social Media (like Whats App) ■ One to one meeting by respective POI field functionaries on regular basis ■ Regular communication by NDDB and respective POI through mass media like WhatsApp, radio samvad and other digital platform developed for project. 	<ul style="list-style-type: none"> ■ NDDB ■ POIs (like Milk Unions/Milk Producer Companies) ■ GRO of POI
2	Dairy Cooperative Societies (DCSs) / Milk Pooling Points	<ul style="list-style-type: none"> ■ Prior information to DCS members on camps proposed to be organized during the specific month/ quarter by related department (e.g. veterinary hospital) 	<ul style="list-style-type: none"> ■ Social Media (like WhatsApp) ■ Advertisements through mass media like radio 	<ul style="list-style-type: none"> ■ Regular communication by NDDB through Social Media (like WhatsApp), radio 	<ul style="list-style-type: none"> ■ NDDB ■ Respective POIs

S No	Main Target Stakeholders	Engagement and Communication Need	Proposed Engagement and Disclosure Method	Timing of engagement	Responsible Parties
		<ul style="list-style-type: none"> ■ Awareness camp on benefits of community milking centre, milking machines; ■ Training/Capacity Building on milk quality, milk production, animal feeding practices, fodder production & conservation; ■ Organise camps to address all vaccination, animal health and first aid related queries and needs of the DCS/ MPP' ■ Awareness program on scientific calf rearing practices and other dairy related topics; ■ Provide information on ways to access AMCS/digital tracking system and quality testing equipment's at DCS/MPP level for bringing more transparency in milk procurement system. 	<p>samvad, newspapers, television, etc.</p> <ul style="list-style-type: none"> ■ Newsletter/ leaflets/ Pamphlet/notice board ■ Monthly/management committee meeting ■ Awareness camps ■ Extension materials ■ Meeting with P&I staff of Milk unions <p>Local language and culturally appropriate platform of the community should be considered in engagement process</p>	<p>samvad and other digital platform developed for project;</p> <ul style="list-style-type: none"> ■ Regular meeting by respective POIs periodically with DCSs/MPP members; 	
3	Customer/Retailers / distributor of milk & milk products/ Milk Booths	<ul style="list-style-type: none"> ■ Awareness on milk quality and safety issues ■ Awareness on availability of milk and milk products adhering to high quality norms ■ Prior information on engagement with retailers/ distributor/ wholesalers as part of market survey and brand development program under the project ■ Access to functional GRM of POIs 	<ul style="list-style-type: none"> ■ Wall writing, pictorial messaging etc. ■ Advertisements through mass media like radio samvad, newspapers, television etc. ■ Market survey 	<ul style="list-style-type: none"> ■ Once before initiating project implementation through mass media ■ Once at the time of market survey 	<ul style="list-style-type: none"> ■ POI
4	Village level functionaries such as	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project interventions and benefits; 	<ul style="list-style-type: none"> ■ Project disclosure on DAHD/NDDDB website 	<ul style="list-style-type: none"> ■ Once by project NDDDB through 	<ul style="list-style-type: none"> ■ NDDDB

S No	Main Target Stakeholders	Engagement and Communication Need	Proposed Engagement and Disclosure Method	Timing of engagement	Responsible Parties
	AI technician, DCS secretary, Pashu Sakhis, Sahayaks and other resource person	<ul style="list-style-type: none"> Information on training and capacity building opportunities for village level functionaries; Clarity on incentives and conditions of work for the functionaries 	<ul style="list-style-type: none"> Orientation meeting Progress/review meeting by POIs Social Media (like WhatsApp) Training and capacity building in local language Information camps 	<ul style="list-style-type: none"> Social Media (like WhatsApp) Period review and progress update meeting by POI 	<ul style="list-style-type: none"> POIs (like Milk Unions/Milk Producer Companies)
5	Workers engaged in operating BMCs, Chilling Plant, Dairy Plant, Milk Unions	<ul style="list-style-type: none"> Awareness on NDSP Phase-II project interventions and benefits; Information on training and capacity building for workers engaged on BMCs/Chilling plant, dairy plants; Clarity on incentives and conditions of work Prior Information on potential employment opportunities for local workforce of POIs Access to functional GRM of POIs 	<ul style="list-style-type: none"> Social Media (like WhatsApp) Internal meeting by POI Training workshop GRM 	<ul style="list-style-type: none"> Once before initiating project implementation through mass media Interaction through GRM process Monthly meeting Once a year training workshop 	<ul style="list-style-type: none"> NDDB POIs (like Milk Unions/Milk Producer Companies) GRO of POI
6	State Milk Federations	<ul style="list-style-type: none"> Information on details of NDSP Phase project-II components and sub-components (eligibility criteria, funding pattern, pilots programmes, etc.); Information on applicable E&S requirements/ compliances during project implementation; Mechanism for ensuring convergence with other dairy development schemes in the state 	<ul style="list-style-type: none"> Project disclosure on DAHD/NDDB website Orientation program Meeting, email, letter. Progress review meetings with NDDB, SLTMC Coordination meetings with state governments 	<ul style="list-style-type: none"> Once at the outset of Project implementation by SLTMC and NDDB Regular interaction with NDDB during project implementation phase 	<ul style="list-style-type: none"> SLTMC³ NDDB

³ State Level Technical Management Committee

S No	Main Target Stakeholders	Engagement and Communication Need	Proposed Engagement and Disclosure Method	Timing of engagement	Responsible Parties
		<ul style="list-style-type: none"> Seeking regular project implementation update from POIs 		<ul style="list-style-type: none"> Quarterly review meetings 	
7	Milk Unions/Milk plants	<ul style="list-style-type: none"> Information on details of NDSP Phase-II components and sub-components (eligibility criteria, funding pattern, pilots programmes, proposal preparation and submission process, approval process etc.); Strengthening governance at milk union level through targeted capacity building program; Access to project resources for addressing capacity and technical constrains for improving coverage and milk collection; Training and awareness programme for the staff deployed in various department of Milk Unions; Information on applicable Environment & Social requirements/compliances that will be triggered during project implementation; Awareness on Health and Safety measures for workers 	<ul style="list-style-type: none"> Project disclosure on DAHD/NDDDB website Orientation workshop for DMUs Social Media (like WhatsApp) Capacity building of leadership and staff Meetings with state federation, AGM and monthly meetings Project review meeting by NDDDB 	<ul style="list-style-type: none"> One to one meeting by Federation with milk unions at the outset of the program Regular interaction with Federation and NDDDB throughout project implementation 	<ul style="list-style-type: none"> SLTMC NDDDB Federation
8	Milk Producer Companies/Farmer Producer Organisation (FPO)/Milk Producer Organisation formed by SHGs	<ul style="list-style-type: none"> Awareness on proposed intervention under NDSP Phase-II project for milk producer companies so as to ensure better access to the program; Clarity on the scope and areas for sub-project planning 	<ul style="list-style-type: none"> Project disclosure on DAHD/NDDDB website Orientation workshop for DMUs Social Media (like WhatsApp) 	<ul style="list-style-type: none"> One to one meeting by Federation with milk producer companies at the outset of the program 	<ul style="list-style-type: none"> SLTMC NDDDB Federation

S No	Main Target Stakeholders	Engagement and Communication Need	Proposed Engagement and Disclosure Method	Timing of engagement	Responsible Parties
		<ul style="list-style-type: none"> ■ Improved capacities and handholding support for preparation of sub-project plans and their implementation ■ Information on applicable E&S requirements/ compliances that will be triggered during implementation; ■ Measures for Health and Safety of Workers 	<ul style="list-style-type: none"> ■ Capacity building of leadership and staff ■ Meetings with state federation, AGM and monthly meetings ■ Project review meeting by NDDB 	<ul style="list-style-type: none"> ■ Regular interaction with NDDB during project implementation 	
9	ICAR/Agriculture University/ Regional Fodder Station	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project interventions, specifically around capacity building and technical interventions including pilots & studies ■ Information on potential engagement opportunities as training and capacity building expert agency; ■ Information on Training needs assessment and development of training curriculum for project 	<ul style="list-style-type: none"> ■ Project disclosure on DAHD/NDDB website ■ Advertisements through mass media like newspapers, television etc. 	<ul style="list-style-type: none"> ■ Once at the outset of project implementation through project disclosure on website 	<ul style="list-style-type: none"> ■ NDDB ■ POI
10	Veterinary hospitals/clinic at district/block/ panchayat level	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project interventions ■ Clarity on procedures for accessing support/services under the project for dissemination among dairy farmers/community members; ■ Awareness on potential collaboration with project interventions like Training and capacity building on EVM, Disease surveillance and prevention, organise awareness camps on animal health and related government schemes available for farmers. 	<ul style="list-style-type: none"> ■ Project disclosure on DAHD/NDDB website ■ Advertisements through mass media like newspapers, television etc. ■ Training and capacity building workshop ■ Awareness camps 	<ul style="list-style-type: none"> ■ Once at the outset of project implementation through project disclosure on website ■ Camps, workshop as per project schedule 	<ul style="list-style-type: none"> ■ NDDB ■ POI

S No	Main Target Stakeholders	Engagement and Communication Need	Proposed Engagement and Disclosure Method	Timing of engagement	Responsible Parties
11	Veterinarian/ Animal Health Workers	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project interventions and benefits; ■ Access to functional GRM for the project 	<ul style="list-style-type: none"> ■ Project disclosure on DAHD/NDDDB website ■ Advertisements through mass media like newspapers, television etc. ■ Training and capacity building workshop ■ Awareness camps ■ GRM 	<ul style="list-style-type: none"> ■ Once at the outset of project implementation through project disclosure on website ■ Camps, workshop, training & capacity building program as per project schedule 	<ul style="list-style-type: none"> ■ NDDDB ■ GRO of POI
12	Cattle Feed Plant/TMR Plant/ Seed Processing/ Silage manufacturers	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project interventions ■ Prior information on Training and capacity building opportunities on feed production and Total Mixed Ration (TMR) ■ Awareness on regulatory compliance requirements 	<ul style="list-style-type: none"> ■ Project disclosure on DAHD/NDDDB website ■ Advertisements through mass media like newspapers, television etc. 	<ul style="list-style-type: none"> ■ Once at the outset of project implementation through project disclosure on website 	<ul style="list-style-type: none"> ■ NDDDB ■ POI
13	Transport Service provider	<ul style="list-style-type: none"> ■ Awareness for drivers and vehicle owners on the issue of community health & safety; ■ Awareness on emission norms on CPCB vehicular Emission standards 	<ul style="list-style-type: none"> ■ Project disclosure on DAHD/NDDDB website; ■ Dissemination of pertinent information (like driver check on health & safety, vehicular emission compliance requirement) 	<ul style="list-style-type: none"> ■ Dissemination of pertinent information at the signing/renewal of contract with transport service provider; ■ Periodic awareness camps for drivers/transport service providers. 	<ul style="list-style-type: none"> ■ POI

S No	Main Target Stakeholders	Engagement and Communication Need	Proposed Engagement and Disclosure Method	Timing of engagement	Responsible Parties
14	FSSAI (Food Safety and Standards Authority of India)	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project and measures for improved safety ■ Seeking food safety compliance reports ■ Coordination with POIs for certification and safety audits 	<ul style="list-style-type: none"> ■ Project disclosure on DAHD/NDDDB website ■ Review meetings to report compliance 	<ul style="list-style-type: none"> ■ Once at the outset of project implementation through project disclosure on website ■ Compliance review meeting periodically 	<ul style="list-style-type: none"> ■ NDDDB ■ POI
15	Other Government department like Labour Department, Environment department etc.)	<ul style="list-style-type: none"> ■ Process of obtaining applicable license and permits ■ Seeking periodic compliance reports ■ Measures in place for ensuring regulatory compliance under the project ■ Coordination with POIs for convergence with other labour welfare schemes 	<ul style="list-style-type: none"> ■ Project disclosure on DAHD/NDDDB website ■ Review meetings to report compliance 	<ul style="list-style-type: none"> ■ Once at the outset of project implementation through project disclosure on website ■ Compliance review meeting periodically 	<ul style="list-style-type: none"> ■ NDDDB ■ POIs
16	NGOs	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project interventions ■ Procedures for accessing service and support to facilitate inclusion of dairy farmers specially women and other vulnerable groups ■ Access to functional GRM for the project 	<ul style="list-style-type: none"> ■ Project disclosure on DAHD/NDDDB website ■ Advertisements through mass media like newspapers, television etc. ■ Camps 	<ul style="list-style-type: none"> ■ Once at the outset of project implementation through project disclosure on website ■ Camps, workshops 	<ul style="list-style-type: none"> ■ NDDDB ■ POIs
17	Women members of community engaged in dairy	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project ■ Awareness on women centric project interventions and benefits under the project 	<ul style="list-style-type: none"> ■ IEC Activities (Wall writing, Pictorial messaging etc.) ■ Newsletter/ leaflets/ Pamphlet ■ Extension materials 	<ul style="list-style-type: none"> ■ Once by NDDDB through Social Media (like WhatsApp) 	<ul style="list-style-type: none"> ■ NDDDB ■ POIs ■ GRO of POI

S No	Main Target Stakeholders	Engagement and Communication Need	Proposed Engagement and Disclosure Method	Timing of engagement	Responsible Parties
		<ul style="list-style-type: none"> ■ Information on ways for enhancing participation of women farmers and entrepreneurs ■ Awareness on eligibility criteria for accessing project support ■ Awareness on trainings and capacity building opportunities available with project ■ Awareness on eligibility criteria for employment as Lady Extension Officer in project ■ Access to functional GRM for the project 	<ul style="list-style-type: none"> ■ Consultations, Meetings, FGDs ■ Lady Extension Officer meeting ■ Social Media (like WhatsApp) ■ Advertisements through mass media like newspapers, television, radio samvad etc. ■ Training and capacity building ■ Information camps ■ GRM <p>Local language and culturally appropriate platform of the community should be considered in engagement process.</p>	<ul style="list-style-type: none"> ■ One to one meeting by respective POI field functionaries on regular basis ■ Regular communication by NDDDB and respective POI through mass media like WhatsApp, radio samvad and other digital platform developed for project. 	
18	Scheduled Caste / Schedule Tribes community members	<ul style="list-style-type: none"> ■ Awareness on NDSP Phase-II project ■ Awareness on activities and likely benefits focused on vulnerable groups under the project ■ Information on additional provision for enhancing participation of SC/ST farmers and entrepreneurs ■ Awareness on eligibility criteria for accessing project support 	<ul style="list-style-type: none"> ■ IEC Activities (Wall writing, Pictorial messaging etc.) ■ Newsletter/ leaflets/ Pamphlet ■ Extension materials ■ Consultations, Meetings, FGDs ■ Social Media (like WhatsApp) ■ Radio samvad 	<ul style="list-style-type: none"> ■ Once by NDDDB through Social Media (like WhatsApp) ■ One to one meeting by respective POI field functionaries on regular basis on regular basis ■ Regular communication by 	<ul style="list-style-type: none"> ■ NDDDB ■ POIs ■ GRO of POI

S No	Main Target Stakeholders	Engagement and Communication Need	Proposed Engagement and Disclosure Method	Timing of engagement	Responsible Parties
		<ul style="list-style-type: none"> Awareness on trainings and capacity building opportunities available with project Access to functional GRM for the project Information on supplementary livelihood benefits for marginal/small farmers including SC/ST farmers under the Project 	<ul style="list-style-type: none"> Training and capacity building Information camps GRM <p>Local language and culturally appropriate platform of the community should be considered in engagement process.</p>	<p>NDDDB and respective POI through mass media like WhatsApp, radio samvad and other digital platform developed for project.</p>	
19	Landless labours/ small & marginal dairy farmer/Agriculture labour	<ul style="list-style-type: none"> Awareness on NDSP Phase-II project Awareness on activities and likely benefits focused on vulnerable groups under the project Awareness on eligibility criteria for accessing project support Awareness on trainings and capacity building opportunities available with project Access to functional GRM for the project Information on supplementary livelihood benefits for marginal/small farmers under the Project 	<ul style="list-style-type: none"> IEC Activities (Wall writing, pictorial messaging etc.) Newsletter/ leaflets/ Pamphlet Extension materials Consultation and Meetings Radio samvad Training and capacity building Information camps GRM <p>Local language and culturally appropriate platform of the community should be considered in engagement process.</p>	<ul style="list-style-type: none"> Once by NDDDB through Social Media (like WhatsApp) One to one meeting by respective POI field functionaries on regular basis Regular communication by NDDDB and respective POI through mass media like WhatsApp, radio samvad and other digital platform developed for project. 	<ul style="list-style-type: none"> NDDDB POIs GRO of POI
20	Dairy farmers with disabilities	<ul style="list-style-type: none"> Awareness on NDSP Phase-II project benefits 	<ul style="list-style-type: none"> IEC Activities (Wall writing, pictorial messaging etc.) 	<ul style="list-style-type: none"> Regular communication by 	<ul style="list-style-type: none"> Project NDDDB

S No	Main Target Stakeholders	Engagement and Communication Need	Proposed Engagement and Disclosure Method	Timing of engagement	Responsible Parties
		<ul style="list-style-type: none"> ■ Prior information and convenient option for taking part in training and capacity building program; ■ Sensitisation of service providers for ensuring physical access to project support ■ Information on the scope for doorstep delivery of project services like distribution of feed, fodder, AI services etc. ■ Access to functional GRM for the project 	<ul style="list-style-type: none"> ■ Newsletter/ leaflets/ Pamphlet ■ Consultation and Meetings ■ Social Media (like WhatsApp) ■ Advertisements through mass media like newspapers, television, radio samvad etc. <p>Local language and culturally appropriate platform of the community should be considered in engagement process.</p>	<p>NDDDB through Social Media (like WhatsApp), radio samvad and other digital platform developed for project;</p> <ul style="list-style-type: none"> ■ One to one meeting by field functionaries of POIs on regular basis 	<ul style="list-style-type: none"> ■ Milk Unions/Milk Producer Companies ■ POIs ■ GRO of POI

6. IMPLEMENTATION ARRANGEMENT AND MONITORING MECHANISM

6.1 Responsibilities for Implementing Stakeholder Engagement Activities

At the apex level, a Central Project Steering Committee (CPSC) will be setup, which will be headed by the Secretary (AHD), Department of Animal Husbandry & Dairying, Ministry of Fisheries, Animal Husbandry & Dairying, Government of India. CPSC will give policy directions, approve annual action plans, sanction the release of funds to NDDB and generally oversee and review implementation of the overall project including SEP implementation.

There will be a Project Sanctioning Committee (PSC), headed by Secretary (AHD), GoI which will sanction the projects. Under the project, for smooth coordination & monitoring, Project Management Units PMU will be established at NDDB and Project Facilitation Cell (PFC) will be established at DAHD.

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 AH&DD Department. The SLTMC will screen and recommend the sub-project plans of POIs for approval.

PMU at NDDB, Anand (NDDB), will be headed by Chairman/Managing Director and it will manage the implementation and monitoring of day-to-day project activities with the support of various Technical Groups within NDDB during implementation of the Project. The PMU-NDDB will be responsible for the operationalization and overall implementation of this SEP. PMU-NDDB will have a dedicated Environment and Social (E&S) Cell, who will act as Nodal Officer for implementation of E&S management system including SEP implementation. E&S Cell will seek SEP implementation update on predefined KPIs from POIs of respective states in the monthly, quarterly and annual project implementation update report.

Table 6-1 Roles and Responsibilities for SEP Implementation

S. No	Entity	Responsibility in SEP implementation
1	E&S Cell, NDDB	<ul style="list-style-type: none"> ■ Nodal agency for implementing E&S action plan including SEP implementation; ■ Driving stakeholder engagement activities as per SEP across the project implementing states; ■ Updating SEP on regular basis based on feedback received from line agencies like CPSC, PFC, SLTMC, POIs ■ Supervision of SEP implementation by POIs ■ Maintain records of engagement activities ■ Designate a GRO for leading GRM function for the project ■ Analyse grievance data and make it part of the periodic project reporting
2	State Level Technical Management Committee (SLTMC)	<ul style="list-style-type: none"> ■ Monitor SEP implementation by respective POIs of the state; ■ Provide feedback to NDDB on SEP related matters, including periodic data on grievances received and redressed

S. No	Entity	Responsibility in SEP implementation
3	State Federation	<ul style="list-style-type: none"> ■ Monitor SEP implementation by respective POIs of the state; ■ Provide feedback to NDDDB on SEP related matters; ■ Designate one officer as GRO for the project for the state.
4	Other POIs (Milk Union, Milk Producer Companies, FPO etc.)	<ul style="list-style-type: none"> ■ Implement actions as proposed in SEP with the guidance from NDDDB; ■ Designate one officer as GRO for the project for the POIs; ■ GRO will implement GRM along with support of their field functionaries at POI level; ■ Maintain records of engagement at their offices.

6.2 Training on SEP implementation

NDDDB will organize an orientation program on implementation of the SEP wherein representation from all key implementation agencies would be ensured. This should include at a minimum representation from State Level Technical and Management Committee (SLTMC), State Federations, select Milk Unions and representatives of POIs. The orientation should be followed by regular training programs for POIs wherein Grievance Redressal Officer (GRO) and any other officers/staff appointed at POIs for handling stakeholder issues, should participate. NDDDB will also provision for refresher trainings for the POIs on SEP implementation at a certain frequency (preferably at least once in a year).

6.3 Monitoring and Reporting

6.3.1 KPIs

Performance of POIs on SEP implementation will be assessed basis of predefined key performance indicators that will be developed and tracked in the monitoring report. KPIs on SEP may include but not limited to following indicators:

- Number of consultations undertaken by POIs in the reporting period;
- Details on awareness camps, capacity building program, disclosure meetings, workshops etc. organized in reporting period;
- Number of grievances received, average resolution time (disaggregated by gender and stakeholder group);
- Details on unresolved grievances, grievances escalation and final decision during reporting period

These KPIs as well as any other complementary information on engagement activities undertaken by POIs will be conveyed to stakeholders on NDDDB's website periodically.

6.3.2 Monitoring

SEP implementation update on Key Performance Indicators (KPIs) will be integrated with overall project evaluation mechanism as envisaged in project DPR, which includes provisioning for;

- **Internal Monitoring & Evaluation:** wherein six monthly M&E Report will be generated by consolidating information provided by different POIs.

- **External Monitoring & Evaluation:** will be conducted through external M&E Consultants (agencies) hired based on the procurement guidelines of World Bank. Monitoring specified indicators relating to outputs and outcomes by carrying out baseline, mid-term, end-of-project surveys and also annual surveys in the intervening years of the project based on a sound sampling strategy, will be undertaken by external M&E consultants. SEP implementation related KPIs will be included in TOR of the external consultants
- **Monitoring & Evaluation responsibilities of POIs:** there will be a Project Management Cell (PMC) for each POI, to monitor the implementation of sub-project plans (SPPs) and report to NDDB on pre-identified KPIs that will include SEP implementation related KPIs.

6.3.3 Reporting

Basis of the above described M&E arrangement, SEP implementation update on KPIs will be integrated in overall reporting arrangement for the Project as envisaged in project DPR which includes;

- Six-monthly consolidated reports at POIs levels and by the NDDB – these will form an important basis for the six monthly performance review to be undertaken jointly by the World Bank and NDDB;
- Consolidated mid-term implementation report by the NDDB and mid-term impact assessment report by the external agency, which will form the basis of the mid-term review to be undertaken by the World Bank.
- Consolidated project implementation and assessment report by the NDDB and overall project evaluation report by external agency at project completion – these will be integral to preparation of the Project Completion Report.

Besides above reporting arrangement, POIs of respective states will be responsible to provide monthly, quarterly and annual reports to PMU-NDDB in a specified format or through online project MIS software. These submission by POIs, will also include updates on predefined SEP implementation KPIs.

NDDB will revisit the SEP periodically to assess the need for any revisions or updates, based on design changes or changes in the project's implementation strategies, inclusion of additional stakeholders or geographies and also assess if the proposed engagement strategies are relevant to the changed narrative. The designated NDDB staff (at the E&S Cell) as well as representatives of the POIs will be responsible for monitoring the implementation of the SEP and also validate the data being provided by the implementing agencies. The POIs will also develop a system of random verification with the aggrieved party to ensure that the system is functioning effectively.

6.4 Information sharing & disclosure

NDDB has a fully functional website containing suo-moto disclosures of required information about the organization. All information regarding the project details of the activity/ sub-activity, eligibility criteria etc., will be provided on the NDDB's website. Also, progress of the project and the particulars of the person who may be contacted to NDDB for seeking further information will also be provided on the website. For the purpose of project information dissemination, other disclosure method as discussed under **Section 5** of this report will also be followed.

The draft SEP will be disclosed by the NDDB on its official website for seeking comments and feedback. Once finalized based on feedback received it will be re-disclosed. Information on any changes in the Stakeholder plan, project design/ components, will need to be shared with the stakeholders through consultations and duly disclosed by the Borrower.

The project will also ensure periodic status reports/ information on the outcome of stakeholder engagement, describing the process adopted, the number of stakeholders (across each category) consulted, summary of the feedbacks/ suggestions received and process/ strategy adopted to ensure direct and indirect accrual of project benefits to them.

All information pertaining to the project will need to be provided by NDDDB and POIs to the stakeholders in the local/ official language according to the engagement strategy outlined in this plan.

6.5 Budget for SEP implementation

Tentative budget provision for implementation of stakeholder engagement plan during the project life cycle is provided below given in the Table below. These shall be revised and updated basis of feedback received on SEP implementation from line department.

Table 6-2 Tentative Budget for SEP implementation

S. No	Activities	Total Cost (Lump sum) in INR in lacs
1	Consultations with identified stakeholders	30
2	Developing of IEC Material & Printing and dissemination of IEC Material	30
3	Videography/Social Media/Electronic and others	15
4	Orientation program and workshop on SEP with SLTMC and State Federation representatives at NDDDB Anand	15
5	Training and Capacity building	30
	Total	120

7. GRIEVANCE REDRESSAL MECHANISM

A grievance would usually mean some form of concern by a stakeholder which needs to be redressed in order to continue smooth implementation of the project. NDSP Phase-II will need a system for redressal of grievances that may arise in the course of implementation from various stakeholders. The GRM to uphold the Project's development outcomes as well as its social and environmental performance is designed to address concerns and complaints promptly and transparently with no direct or indirect retaliation on the aggrieved party. Grievances raised by stakeholders will need to be managed through an accountable and transparent process, at no cost. The GRM will work within the existing national and state's legal and accountability frameworks and will provide an additional opportunity to stakeholders and interested parties to resolve their project specific grievances.

The key objectives of this GRM will be:

- The grievance mechanism will be proportionate to the potential risks and impacts of the project and will be accessible and inclusive;
- Where feasible and suitable for the project, the grievance mechanism will utilize existing formal or informal grievance mechanisms, supplemented as needed with project-specific arrangements;
- Ensure availability of offline as well as online mechanisms which are simple to use and accessible by all the categories of stakeholders and by people with differing levels of literacy and awareness;
- To record, categorize and prioritize the grievances;
- Inform the stakeholders about the action taken or information sought and ensure that the grievances are adequately addressed and resolved within a specified timeframe;
- Provide a hierarchy and an appellate authority within the project management set-up for handling appeals on grievances perceived as being unresolved by the complainant;

The types of grievances by stakeholders may include, but are not limited to:

- Grievances raised by milk producers such as issues related to membership for DCS/MPP, timely payment, milk supply, access to various veterinary services offered by POIs, doorstep delivery of veterinary services etc.;
- GBVH (Gender based violence & harassment) or any other kinds discrimination related grievances being faced by target beneficiaries in accessing the project interventions and workers/labours/Staff employed in implementation of NDSP Phase-II ;
- Customer's complaint regarding quality of milk and milk products being supplied by milk unions, etc

7.1 Grievance Handling Procedure

Any grievances of stakeholders related to NDSP Phase-II Project implementation, will be addressed in the accordance with the procedure defined in following sub-sections;

NDDDB would have a designated officer who will function as a 'Grievance Redressal Officer (GRO)' to deal with all matters relating to public grievances/ complaints. At the POIs level, an official will be designated to serve the role of GRO in order to facilitate in implementing the GRM for the project. The list of GROs (Contact numbers/ mailing IDs and address) would be displayed on the web site of NDDDB and POIs and at other relevant locations (like notice board of DCS/MPP, Milk unions, POIs etc.)

Every offices of the project should display at a prominent place/ notice board the name of GRO with location, Contact numbers/ mailing IDs and address along with the specific visiting hours for hearing / receiving the grievances/complaints.

While receiving grievances either orally or in writing, following information should be recorded;

- Name, address and telephone/mobile number (if any) of the complainant;
- A brief description of the grievance along with any relevant supporting documents (if any) to substantiate the complaint/grievance;

Grievances can be registered using the following mentioned channels (also refer Section 5.3 & 5.4 for detailed engagement methods) ;

- **Written/in paper:** Using the Complaint Box kept at reception of offices of POIs. The Complaint Box should be opened on daily basis by the GRO;
- **Telephonic call** at GRO's contact number;
- **Through Email:** Emails on Email IDs of the GROs of POIs/ NDDB
- **In person complaints:** Written/verbal, directly to the GRO in office or to the concerned designated authority;

In case the complainant is not satisfied with the response at a certain level, he/ she will be free to approach the next level. The complainants will also have the option to file their grievances anonymously, in case they fear retribution or if do not want their personal details to be disclosed.

The grievance redressal process is delineated below;

- Every grievance/complaint received would be acknowledged with a unique reference number and copy of the acknowledgement with this reference number would be provided to the complainant within 3 working days of receipt of complaint (in case of online complaints) or handed over to person at the time of receipt for complaints submitted in person;
- The acknowledgment slip provided to the complainant, would be indicating the name, designation and telephone number of the official who is processing the case. The time frame in which a reply will be sent would also be indicated;
- The complainant would be quickly informed of the action taken within proposed response time suggested at each level;
- A record of all complaints received and action taken till disposal would be maintained at each level.
- A reply or action taken report on any grievance will cover all points raised and not address the grievance partially. If there is any follow- up action, it must be pursued- all partially processed grievances will remain pending in the system;
- No grievance is to be rejected without having been independently examined. At a minimum, this means that an officer superior, to the one responsible for the action, should examine the case as well as the reply, intended to be sent to the complainant;
- If a complaint is rejected, the reasons for such rejection must be made explicit and should be intimated to the complainant within the timeframe;
- The Complaints related to PMU will be dealt directly by the GRO of the NDDB and redressal will be done as per timeframe. The decision of the NDDB will be final and will be abided by.

The GRO in the NDDB will prepare a monthly report which will include reports to be obtained from the GROs of each POIs. This report will be reviewed by the CPSC (Project Steering Committee) annually or as needed. Whenever required, the CPSC will provide guidance to NDDB, on ways to dispose of grievances in an effective manner.

The designated Environmental and social specialist at NDDB will analyze grievance records periodically.

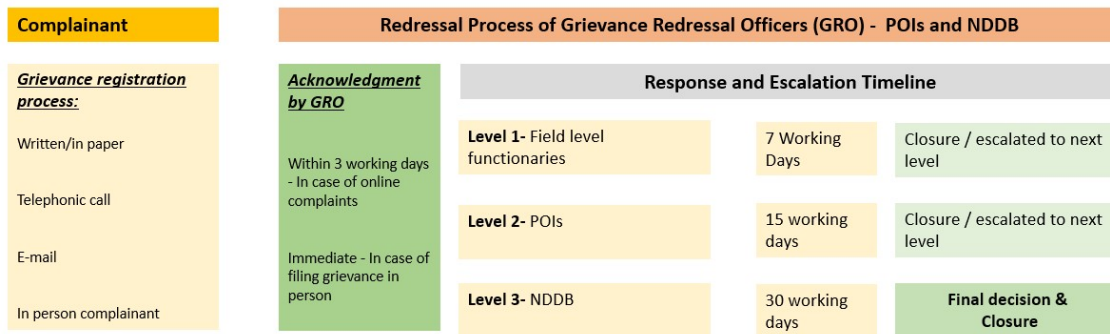
Escalations and timelines

Grievances registered with GROs with NDDB and/or POIs will be addressed at three levels;

- **Level 1:** Appropriate action will be taken at the field level by concerned Field level officer (such as DCS secretary, Field Supervisor, Area Supervisor etc.) and responded back to the complainant within 7 working days from date of registration of the grievances and it will be closed;
- **Level 2:** Grievances requiring intervention from district level POIs (like Milk Union, Milk Plants, Producer Companies etc.) will be responded back within 15 working days from date of receipt of complaints at POI level and it will be closed;
- **Level 3:** If complainant is not satisfied with the action taken at level 1 & 2, then it will be forwarded to GRO at NDDB who will be expected to respond back within 30 working days from date of receipt of complaint at NDDB and whose decision shall be final and binding.

If the complainant is dissatisfied with the final redressed, s/he will have the freedom to adopt legal recourse to get satisfactory redressed.

Figure 7-1 GRM Flow Chart



7.2 SEA-SH Related Grievance Handling

Women form an important part of the dairy supply chain in all the project states. In the cooperative structure their presence may be at the DCS level, as dairy farmers or at the Milk Union and Federation level as employees/institutional stakeholders. Apart from this, women are also involved as workers in the Dairy Plants, BMCs, Chilling Centres, Cattle Feed Plants, Seed Processing Plants, Biogas/Manure Plants, and other such institutions which are a part of the dairy supply chain. In the ancillary supply chain women maybe engaged as veterinary service providers or animal nutrition officers or even training officers deployed by local NGOs/KVKs. The NDSP II project emphasis on the need for active involvement of women throughout the supply chain and has specific interventions such as deployment of Lady Extension Officers for this purpose. Keeping in mind the current and future role of women at different levels of the dairy supply chain it becomes necessary to account for their safety and ensure a formal process is put in place for any gender-based grievances (especially related to Sexual Exploitation/Harassment) that may arise.

The SEA/SH prevention and response plan will be developed detailing the grievance policies and procedures clearly framing expectations of conduct for project-related staff as it relates to sexual exploitation and abuse and sexual harassment, and how breaches of conduct should be reported.

The overall project grievance mechanism would allow for the uptake of SEA/SH grievances. SEA/SH complaints can be reported, just like any other project-related grievance, using a regular project-level Grievance Management channel, as mentioned in **Section 7.1**.

APPENDIX A STAKEHOLDERS COVERED IN CONSULTATIONS

Listing of Stakeholders covered in Consultation

S. No	Stakeholder Groups
	Himachal Pradesh (Shimla, Mandi & Kangra Districts)
1	H. P. State Cooperative Milk Producers Federation, Totu, District - Shimla
2	Dept. of Animal Husbandry, Govt. of Himachal Pradesh, Shimla
3	Asst. Cooperative Registrar, Nurpur Circle, Kangra District
4	CSK Himachal Pradesh Agricultural University, Palampur
5	Krishi Vigyan Kendra Sundernagar, District -Mandi
6	Veterinary Doctor at Veterinary Polyclinic, Rampur Block
7	Assistant Food Commissioner at Shimla
8	BMCs and Chilling plants visit and consultations at 6 locations
9	Milk products Wholesalers/Retailers at 7 locations
10	Dairy Plants located in Duttnagar, Chakkar & Dhagwar
11	Cattle Feed Plant Hamirpur at Bhour District - Mandi
12	Dairy Farmers group consultations at 7 locations
13	Women consultations with 3 groups
14	Indigenous People (Scheduled Tribe) consultations with 2 groups
15	Dairy Cooperative Societies (DCSs)/Milk pooling points (MPPs) with 9 groups
16	Milk vendor/Doodhiya consultation
	Uttarakhand (Udham Singh Nagar, Haridwar & Dehradun districts)
17	The Uttarakhand Co-operative dairy Federation (UCDF) Ltd, Haldwani
18	Animal Husbandry and Dairying Department, Haridwar
19	Cattle Feed Plant, Rudrapur
20	Milk unions/Plants at 3 locations
21	Veterinary Hospitals/ Veterinary Doctor
22	Food Inspectors/FSSAI office, Dehradun

S. No	Stakeholder Groups
23	Chilling Plants/BMCs visit and consultations
24	Milk Wholesalers/Retailers consultations
25	15 dairy farmers groups
26	Women group consultations
27	Indigenous People (Scheduled Tribe) groups
28	Household level biogas/manure management plants
29	Dairy Cooperative Societies (DCSs)/Milk pooling points (MPPs)
	Madhya Pradesh (Shajapur, Sagar and Bhopal District)
30	Madhya Pradesh State Cooperative Dairy Federation (MPCDF), Bhopal
31	Directorate of Dairy Development, Department of Animal Husbandry, Government of Bhopal, MP
32	Milk Unions/ Milk plants
33	Muktaa Mahila Milk Producer Company Limited
34	NGOs
35	Training Institute
36	Veterinary Hospitals/
37	Chilling Plant visit and consultation
38	Milk Wholesalers/Retailers
39	Cattle feed plant, Sagar
40	Dairy Farmers group consultations
41	Women group consultations
42	Indigenous People (Scheduled Tribe) groups
43	Milk vendor/Doodhiya
44	Household level biogas/manure management plants
45	Dairy Cooperative Societies (DCSs)/Milk pooling points (MPPs)
	Jharkhand (Garwa, Latehar and Palamu District)

S. No	Stakeholder Groups
46	Jharkhand Milk Federation, Ranchi
47	Directorate of Dairy Development, Department of Animal Husbandry, Government of Jharkhand, Ranchi
48	College of Veterinary Sciences and Animal Husbandry, Birsa Agriculture University, Ranchi, Jharkhand
49	Cattle feed plant running at JMF, Milk Processing Plant Campus located at Hotwar, Ranchi
50	NGOs
51	Veterinary Hospitals/ Veterinary Doctor
52	Chilling Plants/BMCs visit and consultations
53	Milk Wholesalers/Retailers
54	Dairy Farmers group consultations
55	Women group consultations
56	Indigenous People (Scheduled Tribe) groups
57	Milk vendor/Doodhiya
58	Dairy Cooperative Societies (DCSs)/Milk pooling points (MPPs)
	Odisha (<i>Cuttack, Balasore and Bhadrak districts</i>)
59	The Orissa State Cooperative Milk Producers' Federation Ltd.
60	Directorate of Animal Husbandry & Veterinary Services, Odisha, Cuttack (Joint Director)
61	Odisha Livestock Resources Development Society (OLRDS)
62	Milk Producers'/Sellers' Unions
63	Block level Veterinary Officers
64	BMCs and Chilling plants
65	Milk Unions/Dairy Plants
66	Dairy Cooperative Societies (DCSs)/Milk pooling points (MPPs)
67	Cattle Feed Plant, Jagannathpur
68	Dairy Farmers group consultations
69	Women group consultations

S. No	Stakeholder Groups
70	Indigenous People (Scheduled Tribe) groups
71	Household level biogas/manure management plants

**APPENDIX B MINUTES OF STAKEHOLDERS CONSULTATIONS
SUMMARY**

Table B1: Minutes of Stakeholders Consultations of Himachal Pradesh

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
1	Cattle Feed Plant	13.12.2022 Bhour, District Hamirpur	FGD with the plant engineers	<ul style="list-style-type: none"> ■ The plant was established in 2002, with an establishment cost of 1.5 crore. Land for the plant is owned by Dept of Animal Husbandry, Govt. of H.P. ■ Main concerns: 1) Over 10% area of the state is under cultivation, of which 75 % is rainfed, facing frequent water scarcity. The soils are acidic and low in fertility. Hence, green fodder is one of the main concerns in Himachal, 2) Due to topographic hindrances, the place is very expensive. Most of the raw materials are transported from neighbouring states in very expensive manner, 3) Feed Order issued by Govt. of India is still not in place in Himachal. As a result, various types of under specification cattle feed are available in market, which are cheaper (at least Rs. 200 per kg) than cattle feed produced by this plant, 4) Dairy farmers demand that the feed should be available at their doorstep in cheaper price, 5) Lack of training for the dairy farmers to provide knowledge about feed, fodder, milk production etc. ■ Suggested interventions: 1) Plantation of more grasses into waste land or fallow land (which is not used for agriculture or horticulture purpose), 2) Introduction of grasses which can grow in rainfed areas as well (such as rabina, kharco, beul etc.), 3) The plant produces Cattle Feed Type II (with 20% protein and 12% fibre), Cattle Feed Type I (with 22% protein and 7-8% fibre), Mineral Mixture and Urea Molasses Mineral Mixture Block. 5) ■ Production Capacity: Cattle Feed Type I: 100 quintal per month Cattle Feed Type II: 225 quintal per month Mineral Mixture and UMM Blocks: as per demand ■ Market Rates: Cattle Feed Type I: Rs. 2700 per quintal Cattle Feed Type II: Rs. 2500 per quintal Mineral Mixture and UMM Blocks: as per demand ■ Role of the Plant: Dairy co-operatives as well as Dept. of Animal Husbandry put the demand here.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>The plant produces 2 metric tonnes of cattle feed per hour. The machine runs for 8 hrs per day. If there is huge demand, then the machine runs for longer time. Anyone can come to see how the plant is operating (which is not the case for a private enterprise). The Plant has in-house laboratory facility. However, anyone can do the sampling if it is required (it is also mentioned in the cattle feed bag). The operational cost of the plant is INR 15,000 per day per 100 quintal which includes both direct and indirect cost. The plant consumes approximately 150 units of electricity per day. It also has an HSD fired DG set of 120 KW capacity for power backup. The feed plant does not face frequent power cuts (with prior intimation) and the DG set runs for 5-6 hours consuming 10 litres of diesel per hour. Currently there are no RE sources in the plant. The plant has two types of boilers, a diesel-fired and a wood fired, of 1000 kg capacity each. The diesel fired one requires 40 litres of diesel per hour while the wood one required 500 - 700 kgs of wood per day. The Plant has 5 solar panels to boil the water. They do not have plans to shift to biogas fired boilers in near future due to lack of availability of enough biomass/biofuel locally. The plant requires 1,000 litres of water per day which is sourced from a borewell. The plat does not generate any wastewater as such. No hazardous waste generated as such in the Plant except the used oil from DG set (which is used for lubrication purposes).</p> <ul style="list-style-type: none"> ■ Raw materials come under re-usable bags. ■ There is an EHS officer and Plant Engineer in this plant. There is no formal waste management plan or HIRA. ■ As per the discussion, the plant has an EC and all other licenses and permits are in place. ■ Manpower – 19 workers are there in the entire unit which includes 1 woman. Out of the 19, 15 are contractual and the rest are permanent workers. PF and ESI provisions are there for both kind of workers. As per team’s observation the workers were not using any health and safety wares.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
2	DCS	15.12.2022 Bain Village, Indora Block, Kangra District	FGD with DCS Secretaries	<ul style="list-style-type: none"> ■ The VDCS was established in 1982 and is amongst one of the oldest DCS in the district and state. ■ The DCS has 38 members/shareholders out of which 60 percent belong to General category and the rest belong to SC category. There are not ST members of the DCS currently. All the farmer members of the DCS are currently male. ■ The DCS committee is made up of 5 members, amongst whom one member is the Pradhan. The secretary is a salaried employee of the DCS and is not part of the committee. The leadership rotation for the committee happens once every 5 years. Although there are equal opportunities for all members of the DCS to take up leadership positions, in the last few terms a General candidate has been elected as the Pradhan. ■ Milk is supplied to the DCS from 40 – 45 HH on a daily basis. The milk supplied is mostly surplus milk left with the HH after keeping aside enough for personal use. The DCS is able to collect around 150 lpd during lean seasons and 350 – 400 lpd during flush seasons. The DCS does not collect or deal with any dairy products other than liquid milk. ■ The rate for milk is dependant on the Fat and SNF content. Minimum requirement for fat is 3.0% and that for SNF is 7.3%. Based on the fat and SNF content of the milk being collected by the DCS, the average rate is around INR 30 – 31 per litre. Based on these rates and subject to the amount of milk supplied, the farmers ear between INR 2500 – 15000 per month. ■ The region has a significant presence of dudhias and private milk vendors especially from Punjab. Since they provide better rates to the farmers, they are often preferred by the farmers. Thus, low rates for milk is one of the main challenges being faced by the DCS and HP Milkfed. ■ The payment is made by the DCS to the farmers on a monthly basis, once it receives the same from the Milkfed headquarters (after processing of all receipts sent by the DCS). The payment is done in cash since the farmers find it difficult to travel to banks and withdraw money.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ For quality check of the milk collected (Fat and SNF), the DCS has been provided with an AMCU by the Milkfed. Apart from that the milk is checked for spoilage. This has been the practice for the last 12 years. Based on the milk quality sometimes milk is rejected by the secretary of the DCS. Rejection is more common during the summer and monsoon months. ■ The DCS does not have any milk chilling or cooling infrastructure available with them. Milk collected is sent to the nearest BMC (8km away) on a daily basis. The collection vehicle collects the milk at 6:30 am every morning. ■ The DCS has so far not taken up any initiatives to provide training or incentives to its farmer members. However, some occasional training have been organised by the Milkfed, although there haven't been any in the last few years. ■ The DCS does not have women members because women in this region are not so involved in dairy farming activities. Further, the DCS does not have any youth members because the younger generation does not find this to be an attractive business case or sustainable livelihood opportunity. ■ The DCS is located in a single-storeyed building owned by the cooperative. ■ The DCS has a water requirement of 20 – 30 litres per day which is sourced from piped water supply and used for cleaning purposes. The used water is drained in nearby land. ■ The DCS pays an electricity bill of INR 300 – 400 per month. Electricity is mainly consumed for lighting and AMCU purposes.
3	CSK HPKV University	14.12.2022 Palampur, Kangra District	FGD with the associate professor of the Dept. of Animal Nutrition	<ul style="list-style-type: none"> ■ HP is divided into 4 agro-climatic zones, i.e., plains, hills, mountains and alpine. ■ In the Alpine zone mostly nomadic gujjars and gaddis with buffalo herds reside. The challenges include over-grazing and low nutrition amongst animals. The primary occupation in this zone is animal husbandry ■ In the mountains and hills zone, horticulture and animal husbandry are the primary livelihood options along with limited agricultural activities. Here both cows and buffaloes (crossbreed and indigenous) are found. The main problems in this zone are of fodder scarcity due to undulated terrain and cold

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>climate. Landholdings are small and fragmented here. 90 percent of the landowners here own less than 0.5 hectares of land. The Government land has mostly been acquired and forest land is out of bounds for fodder cultivation. Further, wild animals like monkey and wild boar tend to create menace and harm plants/crops.</p> <ul style="list-style-type: none"> ■ Most of the rural population in the state is migrating to nearby cities and states for jobs. This is why dairy farming as an activity is not so popular amongst the younger generation ■ HPKV Veterinary College has pilots running of a feed plant, silage processing unit, silage in drums, silage in bags and fodder bank. The silage unit has an annual turnover of INR 9 crores and supplies to private as well as government agencies. ■ Feed and fodder are a major challenge in HP. Dry fodder is expensive and difficult to procure. ON the other hand, local dairy farmers prefer exotic breeds due to demonstration of high yield. However, due to poor nutrition these exotic breeds are not being able to provide the desired milk yield. Feed and breed go hand in hand. ■ Animal husbandry has 04 key pillars, i.e., feed, breed, management, and health. ■ Breeding has to be done using scientific techniques and keeping in mind the local climactic requirements. ■ Climate Smart Dairying: They are working on feed supplements with locally available materials that will have lower methane emissions. The two products being developed by them are ■ Urea Molasses Block ■ Protein Energy Bolus ■ They have been working on these for the last 25 years. What is needed is sharing the benefits of these with the farmers to ensure that they adopt these practices. ■ They conduct direct trainings and capacity building workshops for farmers. But these are all sponsored programmes. The main topics covered include agro-

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>climatic zone based dairy farming, feed and fodder management, balanced nutrition, feeding schedules etc.</p> <p>They are conducting research on ethno veterinary medicines for treatment of animal diseases at the University. A group of researchers who discovered anti-cancer properties (for animals) of the Kuth plant have also been given an award</p>
3	Dairy Farmer	15.12.2022 Bain Village, Indora Block, Kangra District	Consultation with VDCS	<ul style="list-style-type: none"> ■ Approximately 40 – 45 HH supply milk to the DCS ■ All the HH own cattle. However, they are small dairy farmers mostly and have a herd size of 2-3 animals. Only 4 – 5 HH in the village have more than 5 cows. But these HH are not supplying milk to the DCS because of low rates. ■ The average milk yield per cow is 12 – 15 litres per day. However, this is dependent on the feeding practices. Most animals have a lower-than-normal yield due to poor nutrition. ■ The cow breeds commonly owned by the dairy farmers are Jersey and HF. Indigenous breeds are not generally preferred due to low milk yield. However, Feed and breed are currently not going hand-in-hand. Exotic/crossbreeds such as Jersey and HF have been introduced in HP for improving milk output. But due to lack of proper feed they are unable to provide the desired output. ■ The animals are mostly productive for 14 – 15 lactation cycles after which they are taken care by the dairy farmer families till the die. ■ Existing feeding practice in HP is mainly stall feeding. Grazing is very limited due to small landholdings. The constituents of cattle feed in HP are green/dry fodder (depending on availability), Turi (wheat straw) or paddy straw, green leaves, composite cattle feed, choker (wheat bran), jow ka atta (Dalia), calcium, tarameera/ yellow mustard husk/locally grown anaaj husk. ■ Feed is mainly purchased from the local market and nearby shops. Many farmers are not aware about the feed manufactured by the Milkfed. Those who are aware feel that the feed is not suitable for all types of animals or is not producing the desired yield. However, the main challenge faced by the farmers is the high prices of feed and fodder. ■ . The average income of these families range between INR 2500 – 15000 per month, depending on the quality of milk being supplied by them. However, the

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>profits are minimal since the expenditures incurred in rearing milch animals is high due to high feed and fodder rates in the region.</p> <ul style="list-style-type: none"> ■ The farmers feel that the milk rates provided by the Milkfed are very low, which is why they prefer selling milk directly in the market or to Dudhias or Private Dairies. Since the region is very close to the Punjab border there is a strong presence of such stakeholders in the area and the market is extremely competitive. There are approximately 10 dudhias and 1 private dairy operating in Bain village. ■ The common diseases which affect milch animals in their village include FMD, Bovine Mastitis and Milk Fever. Treatment is locally available but expensive, according to the farmers. ■ The women in the village are not so involved in dairy farming and hence the DCS does not have female dairy farmer members. The women of the HH are mostly only engaged in the milking process. <p>The dung is mostly used by the farmers as manure for their fields while the urine is drained in nearby water drains.</p>
4	Dairy Farmer	<p>15.12.2022 Dariyari Village, Indora Block, Kangra District</p> <p>14.12.2022 Bhattladha Village, Palampur Block, Kangra District (Gujhredha DCS)</p>	Consultation with Dairy Farmer	<ul style="list-style-type: none"> ■ Approximately 10 HH supply milk to the DCS. The average income of these families range between INR 4000 - 5000 per month Amongst milch animals, mostly cows are owned by dairy farmers here and the buffalo population is minimal. ■ The average landholding in this village is 2 – 2.5 acres per family. The total land owned by each HH is mostly divided into three equivalent parts, one for fodder cultivation, one for agriculture and one for settlements. ■ Milk yield is low in winter season and increases February onwards. This is primarily due to the harsh weather conditions during the winter season which is not suitable for the animals. ■ . Usually 40 kg of fodder, 4 kg of feed, 50 – 100 ml of calcium and 40 litres of water is required per animal per day. However, this also depends on the type of animal, milk output, age and specific requirements.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Feed is mainly purchased from the local market and nearby shops. Many farmers are not aware about the feed manufactured by the Milkfed. Those who are aware feel that the feed is not suitable for all types of animals or is not producing the desired yield. However, the main challenge faced by the farmers is the high prices of feed and fodder. Due to the high rates of Turi and other forms of fodder the farmers are being compelled to compromise of the feed being provided to their animals which in turn is leading to problems of poor nutrition and milk yield. ■ Ration balancing is not practised and feed is prepared based on cost economics, self-knowledge and local availability of roughage, concentrate, fodder and supplements. ■ T, ■ The farmers are aware about the Kisan Credit Card Scheme available for livestock purchase, wherein they can get a credit of up to INR 1.5 lakhs. 5 women dairy farmers in the village have also availed of this scheme and are happy with it. ■ The common diseases which affect milch animals in their village include FMD, Warts, Bovine Mastitis and Milk Fever. Treatment is available in the nearby Veterinary Dispensary which is 2.5 km away and costs INR 400 – 500 per visit. The cows were also affected by the recent Lumpy Skin Disease epidemic and the village witnessed 4-5 mortalities. ■ One of the major health problems being faced by the animals is difficulties in getting pregnant even after availing AI services. This can be attributed to poor animal nutrition according to the local Veterinary Pharmacist. ■ Women in the village are mostly engaged in milking activities ■ All HH have refrigerators for storing milk after the milking process. They also undertake household level processing of milk to make Ghee which they sell in the local market. ■ The dung is mostly used by the farmers as manure for their fields while the urine is drained in nearby water drains.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				The dairy farmers usually have bulbs, coolers and fans in their cowshed since it gets really hot for the animals during summers. They incur monthly electricity charges of up to INR 1000 for the same.
5	Dairy Farmer	14.12.2022 Bhattladha Village, Palampur Block, Kangra District (Gujhredha DCS)	Consultation with Dairy Farmer	<ul style="list-style-type: none"> ■ The village has approximately 60 HH, out of which 50 HH own milch animals. They are mostly small dairy farmers mostly and have a herd size of 2-3 animals. Only 3-4 of the milch owning HH in the village have more than 5 animals. Out of the 50 milch animal owning HH 15 – 20 HH supply to Gujhredha. The rest sell to local dairies or dudhias. ■ The average landholding in this village is 5-7 bigha per family. The total land owned by each HH is mostly divided into three equivalent parts, one for fodder cultivation (40%), one for agriculture (40%) and one for settlements (20%). ■ The nearest DCS is the Gujhredha DCS which is located 1.5 km from their village. Approximately 15-20 HH supply milk to the DCS. The average rate of milk is INR 30 per litre. However, the profits are minimal since the expenditures incurred in rearing milch animals is high due to high feed and fodder rates in the region. ■ All HH have refrigerators for storing milk after the milking process. They also undertake household level processing of milk to make Ghee which they use for self-consumption. ■ The dung is mostly used by the farmers as manure for their fields while the urine is drained in nearby water drains. The dairy farmers usually have bulbs in their cowshed ■ The challenges faced by the DCS are of similar nature as discussed above: high cattle feed prices, low milk prices, lack of training and awareness about ration balancing, less yield of milk due to low nutrition, high medical expenditures
6	DCS	15.12.2022	Consultation with a secretary of DCS	<ul style="list-style-type: none"> ■ The DCS has 27 members/shareholders out of which 50 percent belong to General category, 40 percent to OBC category and the rest belong to SC

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
		Dariyari Bhapoo MPCS		<p>category. There are no ST members of the DCS currently. Out the 27 shareholders, 7 -8 are women.</p> <ul style="list-style-type: none"> ■ The DCS committee is made up of 7 members, amongst whom one member is the Pradhan. The secretary is a salaried employee of the DCS and is not part of the committee. The leadership rotation for the committee happens once every 5 years. Although there are equal opportunities for all members of the DCS to take up leadership positions, in the last few terms a General male candidate has been elected as the Pradhan. ■ Milk is supplied to the DCS from 10 HH on a daily basis. This includes members and non-members. From February onwards, the flush season sets in and the number of HH supplying milk increases. However, the milk supplied is mostly surplus milk left with the HH after keeping aside enough for personal use. ■ The DCS is able to collect around 150 lpd during lean seasons and upto 200 lpd during flush seasons. The DCS does not collect or deal with any dairy products other than liquid milk. ■ The rate for milk is dependant on the Fat and SNF content. Minimum requirement for fat is 3.0% and that for SNF is 7.3%. Based on the fat and SNF content of the milk being collected by the DCS, the average rate is around INR 29 - 30 per litre. Based on these rates and subject to the amount of milk supplied, the farmers ear between INR 4000 - 5000 per month. In flush seasons the income may go up by INR 1500 per HH. ■ For quality check of the milk collected (Fat and SNF), the DCS has been provided with an Analyser and Lactometer by the Milkfed. After manually testing using these methods the rate is determined by the secretary based on the rate chart. Apart from that the milk is checked for spoilage. Based on the milk quality sometimes milk is rejected by the secretary of the DCS. Rejection is more common during the monsoon months, when 15 – 20 litres of milk is rejected in a month. ■ The DCS does not have any milk chilling or cooling infrastructure available with them. Milk collected is sent to the nearest BMC on a daily basis.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ The DCS has so far not taken up any initiatives to provide training or incentives to its farmer members. However, some occasional training have been organised by the Milkfed, although there haven't been any in the last few years. ■ The DCS does not have any youth members because the younger generation does not find this to be an attractive business case or sustainable livelihood opportunity. ■ The DCS is located in a rented premise. The society pays a rent of INR 2000 per month as rent, which includes electricity charges as well. ■ The DCS has a water requirement of 10 - 15 litres per day which is sourced from piped water supply and used for cleaning purposes. The used water is drained in nearby land. For countering flies and mosquitoes the Secretary uses a self-formulated insecticide spray. It is a combination of Dettol and another locally available medicine.
7	Dairy Plant	14.12.2022 Dhagwar, Kangra Block, Kangra District	FGD with Technical Superintendent (P&I) and an MPA	<ul style="list-style-type: none"> ■ The plant with was established in 1984 under the NPDD project of Ministry of Agriculture. Later, some parts of the machinery (e.g., chilling machine, pasteurization machine) have changed over the years. ■ Land for the plant belongs to Dept. of Animal Husbandry, Govt. of HP. Plant covers an area of around 10 bigha. ■ It has a capacity of processing 20,000 litres of milk per day. It currently processes around 6,000 litres of milk daily and runs for approximately 6-7 hours. ■ The plant produces pasteurized liquid milk (6000 ltr per day), dahi (200 ltr per day), khoya (30 – 40 kg per day, as per demand), paneer (100 kg per day, as per demand), lassi and non-milk product – biscuit. The biscuits are produced for supply to ICDS across the state. The key raw materials for preparing these products are raw milk, citric acid and culture (for dahi), sugar, refined oil and wheat.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ The plant does not have ghee/butter plant, get the supply of ghee and butter from Mandi unit. The plant also get supply of liquid milk from Una and Nahan plant. ■ Procurement details: The plant procures approximately 6,000 litres of milk per day from village dairy cooperative societies (VDCS) covering approximately 250 villages. The spatial coverage of the dairy plant is Kangra, Una, Chamba, and parts of Hamirpur. ■ The milk procurement and transportation system is in two stages. From the VDCS, where the milk is collected from farmers, the milk is transported to the BMC or Chilling Centres in milk cans by small collection vehicles (non-insulated) or tankers. From the Chilling Centres/BMCs the milk is then transported to the Dairy plant in insulated tankers of varying capacities. The plant currently has 3 operational routes. ■ The plant consumes approximately 30,000 units of electricity per month (including the biscuit factory). It also has a HSD fired DG set of 200 KW capacity for power backup. The dairy plant faces occasional power cuts, and the DG set consumes 15 litres of diesel per hour. Currently there are no RE sources in the plant. ■ The plant has two types of boilers, a diesel fired and a wood fired, of 100 kg and 50 kg capacity respectively. The diesel fired one requires 40 litres of diesel per hour while the wood one required 200 - 300 kgs of wood per day. The boilers run for 7 – 8 hours in a day and in an alternative manner. They do not have plans to shift to bio-gas fired boilers in the near future due to lack of availability of enough biomass/biofuel locally. ■ The plant requires 15,000 litres of water per day for cleaning and wooden fired boiler cooling purposes which is sourced from a borewell. The plant generates approximately 10,000 litres of wastewater per day which is treated at their Effluent Treatment Plant and drained into the nearby Manjhikhad (nala). ■ The key wastes generated by the plant and their means of disposal are as follows

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ○ Hazardous-Oil from DG Set and Compressors – Collected by a registered agency (as per contract) ○ Packaging material waste – 2 to 3 kg film is generated per day which goes for auction. ○ Non-Hazardous ○ Paneer Residue – it is mixed with water and sent to ETP ■ There is no EHS officer or Plant Engineer in this plant. There is no formal waste management plan or HIRA. ■ As per the discussion, the plant has an EC and all other licenses and permits are in place. ■ Manpower – 37 workers are there in the entire unit which includes 4 women. Out of 37, 12 are contractual and the rest are permanent workers. PF and ESI provisions are there for both kind of workers. As per team's observation the workers were not using any health and safety wares.
8	BMC	15.12.2022 Indora Block, Kangra District	FGD with the members of BMC	<ul style="list-style-type: none"> ■ The BMC was set up 12 years ago. At that time it used to cater to 17 VDCS from that region. ■ The BMC handles 800 litres of liquid milk per day right now. In flush season, i.e. January – February in this case, it handles approximately 1500 lpd. ■ The BMC has two bulk milk cooling machines. One is of 500 litres capacity while the other is of 1000 litres capacity. ■ Milk is currently procured from 7 VDCS which cover 35 - 40 villages. ■ There is only one from which milk is collected and brought to this BMC. At 5:00 am a collection vehicle with can system leaves the BMC and goes to Dariyari Bhapoo VDCS. From there it goes to Chudhpur VDCS followed by Bain Indorian VDCS, Basantpur Teora VDCS, Mand Miani VDCS, Rattangarh VDCS and is back to Milwan BMC by 7:30 am. The milk is then cooled in the BMC and transported to Dhagwar milk plant in the same vehicle. The milk takes about 2-3 hours to cool in Summer and 40 mins in winter. However, the milk collected on one day is stored in the BMC and transported to the plant the next day. ■ Cleaning-in-process is carried out daily at the BMC.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ The BMC requires 1000 litres of water per day for cleaning purposes. The water is obtained from piped-water supply. After cleaning the water is drained through the nearby drains. ■ The BMC consumes 350 units of electricity per month during lean seasons and around 600 units of electricity per month during flush seasons. ■ They have one DG set of 7.5 kVA which require 2 litres of diesel per hour. Power cuts are scheduled and occur every Tuesday. Apart from that they occur during storms. ■ The BMC does not have/require any EC or license from PCB since they are not processing or producing any product. The BMC has 2 staff members out of which 1 is a Dairy Helper and the other is the BMC in-charge. There are no women employees.
9	BMC	14.12.2022 Chimbala, Kangra District	Consultation with Milk Procurement Assistant and In-charge	<ul style="list-style-type: none"> ■ The BMC handles 500 litres of liquid milk per day right now. In flush season it handles approximately 700-800 litres per day. ■ The BMC has one bulk milk cooling machines of 1000 litres capacity. ■ Milk is procured from 8 VDCS which cover 30 plus villages ■ There are 2 routes from which milk is collected and brought to this BMC. From both routes normal collection vehicles ply and the milk is collected in 40 litre jars. The insulated tanker then collects all the milk from the BMC and transports it to the Dhagwar Dairy Plant which is 40 km away. ■ Rejection of milk is not so frequent. However, it is more prevalent during winters due to lack of nutrition and during monsoons due to spoilage ■ Cleaning-in-process is carried out daily at the BMC. ■ The BMC requires 500 litres of water per day for cleaning purposes. The water is obtained from piped-water supply. After cleaning the water is drained through the nearby drains. ■ The BMC consumes 300 units of electricity per month during lean seasons and around 400 - 500 units of electricity per month during flush seasons. ■ They have two DG set of 24 kVA each which require 3 litres of diesel per hour. Power cuts are infrequent occurring only once or twice a month. ■ The BMC has been set-up on a rented premise.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> The BMC does not have/require any EC or license from PCB since they are not processing or producing any product. The BMC has 2 staff members out of which 1 are dairy helpers (outsourced) and 1 MPA. There are no women employees. As the capacity of the BMC is less than 1000 litre, hence no technical assistant is deputed.
10	Dairy Plant	10.12.2022 Chakkar, Balh Block, Mandi District	FGD with Dairy Plant	<ul style="list-style-type: none"> The plant with was established in 1972 and capacity addition was done in September 2022 under the NPDD project of Ministry of Agriculture. INR 13.65 crores was used for this capacity addition. Land for the plant is owned by DAHD. It has a capacity of processing 70,000 litres of milk per day (20,000 lpd was initial capacity and 50,000 lpd is additional capacity). It currently processes around 30,000 litres of milk daily and runs for approximately 6-7 hours. During the flush season (monsoons) it processes 60-65,000 litres per day and runs approximately 12 hours. The plant produces pasteurized liquid milk, dahi, ghee, khoya, paneer, lassi, sterilised flavoured milk and non-milk products – Panjiri and Sevaiyan. The non-milk products are produced for supply to ICDS across the state. The key raw materials for preparing these products are raw milk, citric acid and culture (for dahi), groundnut, soyabean, black gram, sugar, refined oil and wheat. Edible food colours and flavours are also used for the flavoured milk. The plant does not have a powder plant and has an additional facility for pouch filling of curd and bottling of flavoured milk. Procurement details: The plant procures approximately 65,000 litres of milk per day from 235 village dairy cooperative societies (VDCS) covering approximately 500 villages and 7000 – 8000 dairy farmers. The spatial coverage of the dairy plant is Shimla, parts of Kullu, Kinnaur and parts of Mandi district. The milk procurement and transportation system is in two stages. From the VDCS, where the milk is collected from farmers, the milk is transported to the BMC or Chilling Centres in milk cans by small collection vehicles (non-insulated) or tankers. From the Chilling Centres/BMCs the milk is then

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>transported to the Dairy plant in insulated tankers of varying capacities. The plant currently has 40 operational routes.</p> <ul style="list-style-type: none"> ■ The federation has 15 – 20 GPS installed vehicles (across the state) for transporting milk from BMCs/Chilling Centres to Plants. ■ The milk is collected through a total of 54 routes out of which 6 are direct routes. It is distributed through 5 marketing routes. ■ During the Covid-19 pandemic the plant's procurement had increased from 25,000 lpd to 50,000 lpd since they had collected milk from individual dairy farmers along with their existing VDCS members. Some migrant labourers who returned home during the pandemic also entered the dairy business and raised procurement in far flung areas from 10,000 lpd to 30,000 lpd. Some of these pourer members have since remained with the Federation and this has helped in increasing formalisation of the dairy supply chain. ■ The operational cost of the plant is INR 1.5 per litre, which includes the costs for boiler fuel, electricity, DG set etc. Additionally, transportation of milk from the VDCS to the plant costs INR 1.90 per litre. ■ The plant consumes approximately 50000 units of electricity per month. It also has a HSD fired DG set of 500 KW capacity for power backup. The dairy plant faces occasional power cuts, and the DG set runs for 7-8 hours in a week and consumes 30 litres of diesel per hour. Currently there are no RE sources in the plant. ■ The plant has two types of boilers, a diesel fired and a wood fired, of 1000 kg capacity each. The diesel fired one requires 40 litres of diesel per hour while the wood one required 500 - 700 kgs of wood per day. The boilers run for 7 – 8 hours in a day and in an alternative manner. They do not have plans to shift to bio-gas fired boilers in the near future due to lack of availability of enough biomass/biofuel locally. ■ Stack height for boilers – 400 ft ■ The plant requires 30,000 litres of water per day for cleaning purposes which is sourced from a borewell. The plant generates approximately 20,000 litres of wastewater per day which is treated at their Effluent Treatment Plant and

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>drained into the nearby agricultural lands which are around 2 – 3 km from the plant boundary.</p> <ul style="list-style-type: none"> ■ There is no EHS officer or Plant Engineer in this plant. There is no formal waste management plan or HIRA. ■ As per the discussion, the plant has an EC and all other licenses and permits are in place. ■ Manpower – 103 workers are there in the entire unit which includes 3 women. Out of the 103, 60 are contractual and the rest are permanent workers. 47 workers are skilled and 56 workers are unskilled. PF and ESI provisions are there for both kind of workers. As per team's observation the workers were not using any health and safety wares. ■ Mr. Pathak's suggestions regarding NDSP II ■ Village level pasteurisation or processing will not be very feasible for HP due to the topographic conditions and less volume of milk produced at the individual village or VDCS level. ■ Ration Balancing pilot was implemented successfully in two villages (Ghatta and Badsu) in Mandi district and could be a good activity for the state to tackle the lack of nutrition in most animals. ■ Biogas plants or bio-slurry processing units will not be feasible in the state due to low volume of biomass generation. Whatever is generated is mostly used up as manure for the agricultural fields of dairy farmers. ■ RE powered solutions in Dairy sector at the VDCS or Chilling Centre/BMC level could be taken up as additional source of power.
11	BMC	10.12.2022 Karsog Block, Mandi District	FGD with the Technical Superintendent/Milk Procurement Assistant at BMC	<ul style="list-style-type: none"> ■ The BMC handles 6100 litres of liquid milk per day right now. In flush season it handles approximately 9000 lpd. Milk is procured from 19 VDCS in Karsog along with a VDCS in Bakshar village (27 km away) and another in Pangana village (19 km away). ■ The BMC has two bulk milk cooling machines of 5000 litres capacity each. ■ The milk collection tanker reaches the BMC around 6 am. Collection and cooling is completed by 10:30 am after which the tanker heads to the

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>Duttnagar plant which is approximately 65 km away. Any milk collected after that is stored in the BMC for collection next day.</p> <ul style="list-style-type: none"> ■ Rejection of milk is not so frequent. However, it is more prevalent during winters due to lack of nutrition and during monsoons due to spoilage ■ Cleaning-in-process is carried out twice daily at the BMC. ■ The BMC required 4000 litres of water per day for cleaning purposes. The water is obtained from piped-water supply. After cleaning the water is drained through the nearby drains. ■ The BMC consumes 2500 units of electricity per month during flush seasons and around 1000 units of electricity per month during lean season. ■ They have two DG sets of 25 kVA which require 4 litres of diesel per hour. Power cuts are prior-informed and frequent. The plant also has a stabiliser to take care of frequent voltage fluctuations. ■ The BMC has been set-up on a rented premise for which they pay annual rent of INR 96,000. The land area is 0.5 bigha ■ The BMC does not have/require any EC or license from PCB since they are not processing or producing any product. ■ The BMC has 5 staff members out of which 4 are dairy helpers (outsourced) and 1 MPA/Technical Superintendent. There are no women employees.
12	BMS	11.12.2022 Kotli Block, Mandi District	Consultation with Milk Procurement Assistant and In- charge	<ul style="list-style-type: none"> ■ The BMC handles 3000 - 4000 litres of liquid milk per day right now. In flush season it handles approximately 5000 - 6000 lpd. ■ The BMC has two bulk milk cooling machines. One is of 5000 litres capacity while the other is of 2000 litres capacity. ■ Milk is procured from 29 VDCA in Kotli block which cover 130 plus villages ■ There are 4 routes from which milk is collected and brought to this BMC. On one route which is 37 km long an insulated tanker collects the milk and brings it to the BMC. The other routes are 71 km, 51 km and 40 km long. On these routes normal collection vehicles ply and the milk is collected in 40 litre jars. The insulated tanker then collects all the milk from the BMC and transports it to the Chakkar Dairy Plant which is 60 km away.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Rejection of milk is not so frequent. However, it is more prevalent during winters due to lack of nutrition and during monsoons due to spoilage ■ Cleaning-in-process is carried out daily at the BMC. ■ The BMC requires 3000 litres of water per day for cleaning purposes. The water is obtained from piped-water supply. After cleaning the water is drained through the nearby drains. ■ The BMC consumes 250 - 300 units of electricity per month during lean seasons and around 400 - 500 units of electricity per month during flush seasons. ■ They have one DG set of 15 kVA which require 4 litres of diesel per hour. Power cuts are infrequent occurring only once or twice a month. ■ . They have a government Veterinary Hospital located above them. ■ The BMC does not have/require any EC or license from PCB since they are not processing or producing any product. ■ The BMC has 5 staff members out of which 4 are dairy helpers (outsourced) and 1 MPA. There are no women employees.
13	Krishi Vigyan Kendra	12.12.2022 Krishi Vigyan Kendra, Sundernagar	Discussion with the director of Krishi Vigyan Kendra	<p><i>Meeting with the Krishi Vigyan Kendra</i></p> <ul style="list-style-type: none"> ■ The KVK is a technical backstop organisation under the CSK HPKV. It is a district level organisation which is involved in the testing of new technologies and solutions being developed by universities/departments and do further research on their feasibility. Once the viability of a technology/solution is tested, it is the DAHD's responsibility to scale up these solutions. KVK's are not involved in mass implementation of solutions. ■ Along with solution testing the KVK's are also involved in providing skill training to farmers and providing demonstrations to them on new technologies/solutions. ■ HPKV is currently developing a new mineral mixture for cattle feed. This is being developed on the basis of locally available supplements and climatic requirements of different agro-climatic zones of the state. The KVK is involved in providing demonstrations on this. Along with that its is also providing

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>training to farmers on how to balance the feed readily available at the village/local level.</p> <ul style="list-style-type: none"> ■ According to the Director, in HP, farmers cannot go for dairy farming as a single enterprise which will sustain their livelihood. Due to the harsh terrain and climatic conditions this will not be a sustainable solution. Instead, farmers should focus on a mix of livelihood activities/enterprises which they can take up for ensuring steady income throughout the year. ■ The KVK conducts 2-3 off-campus trainings and 1 on-campus training every month. For off-campus trainings they try to cover all blocks in the district, across the year. From the insights they get from these off-campus trainings they get an idea about a pool of farmers who they feel would benefit from on-campus training and then invite them for these trainings. They have a Veterinary Scientist who presides over these trainings. The content is also circulated through their Social Media (like WhatsApp) handles. ■ The specific focus areas of the off-campus/on-campus trainings are as follows <ul style="list-style-type: none"> - Mineral Mixtures and Ration Balancing - Disease Management Pilots (including Ethno-Veterinary Medicine) - The KVK also conducts trainings on behalf of other departments. But these are chargeable to the respective departments. ■ The main issues/challenges in the state of HP according to the KVK director are as follows <ul style="list-style-type: none"> - The state has small and marginal farmers who have small and fragmented landholdings and small animal herds. The main reason for this is the terrain of the state. - The lack of availability of green fodder in the winter months and the cost implications of procuring it from other states.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> - The increasing price of Wheat Straw (Turi) which is procured from nearby plains. Prices have risen from INR 800 per quintal to INR 1400 per quintal in the last year. - The poor quality of fodder which is locally available in the state. - Far flung areas with poor connectivity which makes marketing and supply a challenge - Rate of milk provided to the farmers by the Milkfed is very low which makes it a challenge for the small farmers to sustain their livelihood. ■ One of the proposed solutions is the value addition of milk at the village level. Small HH level industries would be instrumental in developing the local economy. In this regard village level milk processing centres could be an activity that could be taken up across the state under NDSP II. ■ Another proposed solution is the development of FPOs and SHGs for formalisation of the dairy value chain at the village level. ■ For future focus, the Director suggested strategies for involvement of youth in dairy farming activities, development of mechanised dairy farming and an increased focus on marketing.
14	Milk Retailer1	12.12.2022 Jail Road, Mandi Town	Consultation with the owner/retailer	<ul style="list-style-type: none"> ■ This shop has been selling HP Milkfed products for the last 15 years. Initially she would exclusively sell Milk and milk products. But over the years an increase in rent and lower demand she also keeps other groceries. Currently she sells packaged milk, dahi, paneer, lassi, ghee and butter. ■ The sale of Ghee has reduced over time even though it is a preferred product because of its quality. Previously 15 – 20 kg of ghee was sold daily while now it has come down to 4-5 kg ■ Dahi is a slow-moving product since it has quality issues. The consistency of dahi received from Milkfed is not the same for every batch. On some days it is thick and has a good quality while on other days it is extremely watery and dilute.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Currently there is too much competition in the dairy product market. Several brands have entered the market which has led to a decrease in individual brand sales. Along with that a small network of Dudhias are also operational who procure milk directly from the villages and sell it at the consumer's doorstep. Given that this is a convenient option some HH are preferring this. The Dudhias operate on a clustr basis. They create a pool of 30-40 HH which they cater to and provide door-to-door services to them. Several sweet shops/halwais also purchase milk from Dudhias. ■ The problem with butter and ghee is that it is not available in smaller packaging. The HP Milkfed butter is only available in 500 gm packaging and ghee in 1 kg packaging. Due to that those consumers who have a requirement of smaller quantities are being left out. ■ Storage: A deep freezer is used for storing milk, dahi, butter and paneer. Lassi is kept in a can at room temperature during winters and inside the deep freezer during summer. Ghee does not require temperature-controlled storage due to the cold weather around the year. ■ The shop is operated out of a rented premise for which a monthly rent of INR 300 and electricity charges of INR 350 are incurred ■ The retailer does not undertake any promotional initiatives or campaigns
15	Milk Retailer 2	12.12.2022 Ambay General Store, Mandi Main Market	Consultation with the milk retailer	<ul style="list-style-type: none"> ■ This shop has been selling HP Milkfed products for the last 10 years. Initially she would exclusively sell HP Milkfed products but now (after lockdown) they also keep other brands. Currently they sell packaged milk, dahi, and ghee. ■ They also keep products of Kamdhenu and Verka. Kamdhenu milk is preferred by consumers while the HP Milkfed Ghee is preferred. The quality of Milkfed products have improved over the years. Around 8-9 years ago it was not so satisfactory and customer complaints were common.
16	Milk retailer 3	12.12.2022 Sundernagar, Mandi District	Consultation with the milk retailer	<ul style="list-style-type: none"> ■ This shop has been selling HP Milkfed products for the last 22 years. Basically, it is a daily need shop. He also keeps some other small grocery

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>items including tea, coffee, sugar etc. just to increase the sale of milk. He is the only one who sell HP milk in the entire area.</p> <ul style="list-style-type: none"> ■ Currently he sells packaged milk (12 to 15 litres per day), dahi, lassi, and ghee (20 kg per month). Paneer and butter are sold on order basis. ■ The quality of dahi is a point of concern. The consistency of dahi received from Milkfed is not good as dahi of Verka. ■ Currently there is too much competition in the dairy product market. Several brands have entered the market which has led to a decrease in individual brand sales. Along with that a small network of Dudhias are also operational who procure milk directly from the villages and sell it at the consumer's doorstep. Given that this is a convenient option some HH are preferring this. ■ Storage: A freezer is used for storing milk, dahi, butter and paneer. Lassi is kept in a can at room temperature during winters and inside the deep freezer during summer. Ghee does not require temperature-controlled storage due to the cold weather around the year. ■ The retailer undertakes promotional initiatives like encouraging local people to buy HP milk for the first time, and if they don't like he will return the money.
17	DCS	09.12.2022 Bargal Village, Shimla District	Consultation with the secretary of village DCS	<ul style="list-style-type: none"> ■ The DCS has 21 members/shareholders out of which 80 percent belong to General category and the rest belong to SC category. There are few ST families in the nearby areas, but they are not the members of the DCS currently. All the farmer members of the DCS are currently female. ■ The DCS committee is made up of 11 members, amongst whom one member is the Pradhan. The election for the committee leadership happens once every 5 years. Although there are equal opportunities for all members of the DCS to take up leadership positions, in the last few terms a general candidate has been elected as the Pradhan. ■ Milk is supplied to the DCS from 30 HH on a daily basis. The milk supplied is mostly surplus milk left with the HH after keeping aside 2 – 3 liters for personal use. The DCS is able to collect around 150 litre per day during flush seasons. The DCS does not collect or deal with any dairy products other than liquid milk.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ The DCS has taken up few initiatives to provide training or incentives to its farmer members. ■ For example: Rs. 2000 cash incentives are given to the farmer who supply good quality of milk. ■ The DCS does not have women members because women in this region are not so involved in dairy farming activities. Further, the DCS does not have any youth members because the younger generation does not find this to be an attractive business case or sustainable livelihood opportunity. ■ The DCS has a water requirement of 150 litres per day which is sourced from piped water supply and used for cleaning purposes. The used water is drained in nearby land. ■ The DCS pays an electricity bill of INR 300 – 400 per month. Electricity is mainly consumed for lighting and AMCU purposes.
18	DCS	09.12.2022 Bharaily MPCs	Consultation with the secretary of DCS	<ul style="list-style-type: none"> ■ The DCS has 31 members/shareholders out of which 90 percent belong to General category and the rest belong to SC category. There are few ST families in the nearby areas, but they are not the members of the DCS currently. All the farmer members of the DCS are currently female. ■ The DCS committee is made up of 10 members, amongst whom one member is the Pradhan. The election for the committee leadership happens once every 5 years. Although there are equal opportunities for all members of the DCS to take up leadership positions, in the last few terms a general candidate has been elected as the Pradhan. ■ Milk is supplied to the DCS from 170 HH on a daily basis. The milk supplied is mostly surplus milk left with the HH after keeping aside 2 to 3 liters for personal use. The DCS collect around 250 litre per day during flush seasons. The DCS does not collect or deal with any dairy products other than liquid milk. ■

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> The DCS has a water requirement of 150 litres per day which is sourced from piped water supply and used for cleaning purposes. The used water is drained in nearby land. The DCS pays an electricity bill of INR 300 – 400 per month. Electricity is mainly consumed for lighting and AMCU purposes.
19	Women in Dairy	09.12.2022 Dogri, Shimla Block, Shimla District	Consultation with Dairy Farmers	<p>Meeting with dairy farmers/ women in dairy</p> <ul style="list-style-type: none"> The village has approximately 100 HH. Most of the HH own cattle. However, they are small dairy farmers mostly and have a herd size of 1-2 animals. Only few HH in the village have more than 3 cows. The average milk yield per cow is 10-15 litres per day in flush session but it reduces to 4-5 litre per day in winter. However, important to mention most animals have a lower-than-normal yield due to poor nutrition. The animals are mostly productive for 14 – 15 lactation cycles after which they are taken care by the dairy farmer families till, they die. The nearest DCS is the Dogri DCS which is located in their village itself. Approximately 100 HH supply milk to the DCS. The average income of these family's range between INR 2500 – 7000 per month, depending on the quality of milk being supplied by them. The main concern of the farmers is low milk rates provided by the Milkfed. The women in the village are very much involved in dairy farming and hence the DCS run by the female dairy farmer members. The women of the HH are mostly engaged in the milking process. The challenges faced by the DCS are of similar nature as discussed above: high cattle feed prices, low milk prices, lack of training and awareness about ration balancing, less yield of milk due to low nutrition, high medical expenditures
20	DCS	09.12.2022	Consultation with Dairy Farmer / Women involved in Dairy	Meeting with Dairy farmer

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
		Bargal, Shimla Block, Shimla District		<ul style="list-style-type: none"> ■ The village has approximately 40 HH. Most of the HH own cattle. However, they are small dairy farmers mostly and have a herd size of 1-2 animals. Only few HH in the village have more than 3 cows. ■ The average milk yield per cow is 12 litres per day in flush session but it reduces to 4-5 litre per day in winter. However, important to mention most animals have a lower-than-normal yield due to poor nutrition. ■ The nearest DCS is the Bargal DCS which is located in their village itself. Approximately 10 – 15 HH supply milk to the DCS. The average income of these families range between INR 2500 – 9000 per month, depending on the quality of milk being supplied by them. ■ The main concern of the farmers is low milk rates provided by the Milkfed. There are 2 to 3 dudhias in Bargal village. ■ The challenges faced by the DCS are of similar nature as discussed above: high cattle feed prices, low milk prices, lack of training and awareness about ration balancing, less yield of milk due to low nutrition, high medical expenditures ■
21	Department of Animal Husbandry	07.12.2022	Consultation with the department of animal husbandry	<p>Meeting with the Department of Animal Husbandry</p> <ul style="list-style-type: none"> ■ The DAHD is mainly looking at breeding and animal health for dairy animals. They have a dedicated team for Animal Health at each district level. AI and free vaccination takes up a major part of their activities. ■ There are some schemes under the Mukhya Mantri Swabilamban Yojana, currently being implemented by the industries department for encouraging dairy farming. These have provisions for direct subsidies and interest subvention ■ Recently the DAHD was engaged in a total prevention campaign for the Lumpy Skin Disease which affected several cows and buffaloes across the state. ■ For breeding, the Phase IV of the National Health Programme is being implemented in the state on a 90:10 basis. 90 percent of the cost is borne by the central government.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Pahadi, Jersey, HF, Red Sindhi and Sahiwal are the common cow breeds prevalent in the state. Similarly, Murrah and Neeli Ravi are the common buffalo breeds. Cross breeding is also being done with the objective of increasing yield and disease resistance. Sorted Sex Semen trials are also being done in some areas of the state. ■ Cow breeding is being done across all districts of the state. However, buffalo breeding is happening mostly in areas with warmer climate and lower altitude, such as, Una, Hamirpur, Bilaspur, Sirmaur and parts of Solan. ■ While scientific calf rearing does not have too much focus at the moment, the department is focussing on special services for pregnant and lactating animals. ■ The state has a HP Gau Seva Aayog which focuses on providing food and shelter to stray cows. They are also looking at strategies for GHG mitigation in these cows. This could be an EIA to consider by NDDB. ■ HP is a fodder deficient state. In winter and summer the farmers have to procure wheat straw (Turi) and paddy straw from nearby states (Punjab and Haryana) which becomes a costly affair. This is one of the major challenges in the state and could be a focus area for NDSP II activities. ■ There is no central assistance for fodder management or production. The state currently has its own scheme ongoing, with a total outlay of 5 crores and a timeline of 5 years. It is being implemented in cattle and sheep farms across the state. This is currently in implementation stage and the fodder will be available in the next 2-3 years. ■ As such ration advisory services are not being provided in the state. However, there are some basic state-specific advice being provided to the farmers through the Veterinary officials at the village level. The DAHD also has this uploaded on their website along with advisories on disease management, fodder management and livestock management.
22	Milk Vendor	09.12.2022	Discussion with milk vendor	<i>Meeting with the milk vendor</i>

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
		Rampur Bushahr, Rampur Block, Shimla District		<ul style="list-style-type: none"> ■ Dudhia collects milk from 15 – 20 HH in the neighbouring villages approx. 20 km away. ■ The amount of milk collected is around 100 lpd during lean seasons and 150 lpd during flush seasons. ■ The rate for milk is dependent on the quality of the milk, average rate is around INR 45-50 per litre which is found to be much higher than the rate fixed by Milkfed. Based on these rates and subject to the amount of milk supplied, dudhia earns INR 15000 – 20000 per month. Lactometer is used to check the quality of milk collected. ■ Milk is collected in plastic jar or cans from doorstep and through utility vehicle transport to the market area. 50% of the collected milk is supplied to the sweet shops at Rampur Bazar, rest are supplied to few households. This has been the practice for the last 15 years.
23	Milk Processing Plant	08.12.2022 Duttnagar, Rampur Block, Shimla District	Consultation with the manager of the dairy plant	<p>Meeting with the dairy plant</p> <ul style="list-style-type: none"> ■ The plant was established in 2012 in 4 bighas of land by the state government and cost around 5 crores. Land for the plant was transferred to the Milk Fed by Dept to Horticulture through DAHD. ■ It has a capacity of processing 20,000 litres of milk per day. However, it currently processes around 65,000 litres of milk daily and runs for approximately 20 hours. ■ Capacity addition of 50,000 litres per day is currently underway at the plant. This is being funded by the Central Government. The funding received for this is 16 crores. ■ The plant produces pasteurized liquid milk, dahi, ghee, khoya, paneer, lassi, whole milk powder (WMP) and skimmed milk powder (SMP). The key raw materials for preparing these products are raw milk, citric acid and culture (for dahi) ■ Procurement details: The plant procures approximately 65,000 litres of milk per day from 235 village dairy cooperative societies (VDCS) covering approximately 500 villages and 7000 – 8000 dairy farmers. The spatial

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>coverage of the dairy plant is Shimla, parts of Kullu, Kinnaur and parts of Mandi district.</p> <ul style="list-style-type: none"> ■ The milk procurement and transportation system is in two stages. From the VDCS, where the milk is collected from farmers, the milk is transported to the BMC or Chilling Centres in milk cans by small collection vehicles (non-insulated). From the Chilling Centres/BMCs the milk is then transported to the Dairy plants in insulated tankers of varying capacities. ■ The milk is distributed through insulated tankers or marketing vehicles to Shimla, Kinnaur and Rampur. Some portion of the liquid milk is also sold to Mother Dairy/Other Cooperative Dairies ■ The plant has it's own transformer and consumes approximately 50 units of electricity per day. It also has a HSD fired DG set of 240 KW capacity for power backup. The dairy plant faces frequent power cuts, and the DG set runs for 2-3 hours in a day and consumes 25 litres of diesel per hour. Currently there are no RE sources in the plant. ■ The plant has two types of boilers, a diesel fired one and a wood fired one. The diesel fired one require 800 – 900 litres of diesel per day while the wood one required 800 – 1000 kgs of wood per day. They do not have plans to shift to bio-gas fired boilers in the near future due to lack of availability of enough biomass/biofuel locally. <ul style="list-style-type: none"> - Stack height for boilers – 400 ft - The plant requires 2 lakh litres of water per day which is sourced from a borewell. The plant generates approximately 1.75 lakhs of wastewater per day which is treated at their Effluent Treatment Plant and drained into River Sutlej which is around 800 metres from the plant boundary. ■ The key wastes generated by the plant and their means of disposal are as follows <ul style="list-style-type: none"> - Hazardous Oil from DG Set – Collected and stored in a drum in the plant premises

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> – Plastic Waste – 2 – 3 kg film is generated per day for which no disposal method is in place. It is currently being burnt. The Pollution Control Board had advised them to discuss disposal methods with the Municipal Corporation, but they fall within the administrative Jurisdiction of Duttnagar GP. They had discussed with GP officials and collection was done for sometime but it has not been consistent. Non-Hazardous : Ghee Residue – 5 kgs per day is generated which is used in cattle feed Powder residue – 5-10 kgs is generated per day on days when the Powder Plant runs (Powder plant of capacity 2.5 tonnes runs 10 days per month). ■ There is no EHS officer or Plant Engineer in this plant ■ As per the discussion, all licenses and permits are in place except for Fire NOC. They have applied for the Fire NOC for the additional premises ■ Manpower – 65 workers are there in the plant which includes 3 women. Out of the 65, 20 are permanent workers and the rest are contractual. The new premises have 20 labourers working. As per team's observation the workers were not using any health and safety wares. ■ The plant is located adjacent to a Senior Secondary School and a Sports Hostel/Indoor Stadium and is 500 metres from Duttnagar village.
23	FSSAI Office	07.12.2022 FSSAI Office	Consultation with FSSAI team	<ul style="list-style-type: none"> ■ The role of FSSAI in the state is the monitoring of milk processing and distribution in the state along with quality of milk and milk products. For this purpose, relevant standards, licenses and sampling/testing mechanisms are in place. Time to time testing is carried out by the respective FSSAI offices in each district. ■ Currently there is one FSSAI office in each district of the state. Each office has one Assistant Commissioner, Food Safety and one/two Food Safety Officers. In total there are 12 Assistant Commissioners and 16 Food Safety Officers in the state. Along with that each of the labs have technical staff for carrying out testing of samples.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ One of the main challenges faced by them is the lack of manpower and infrastructure. ■ Testing of milk/milk products is done at the business level by FSSAI. Milk is usually collected from booths or private dairies. Per month every FSO collects 3-4 milk/milk product samples in each district for testing purposes. There is only one certified testing lab in Solan. All samples are sent there for testing. ■ The following quality issues related to milk and milk products are most common in the state ■ Lack of safe and hygienic packaging by vendors/retailers ■ Adulteration practices by farmers for increasing fat content of milk. Sometimes excess water content or vegetable fat are being found in milk samples collected by FSSAI. <p>High levels of pesticides in the milk samples due to pesticide contamination of the feed being given to the milch animals</p>
24	BMC	09.12.2022 Haripur village, Kullu District	Consultation with BMC	<p><i>Meeting with the BMC</i></p> <ul style="list-style-type: none"> ■ The BMC handles 10,000 litres of liquid milk per day right now. In flush season it handles approximately 17,000 lpd. ■ The BMC has three bulk milk cooling machines of 5000 litres capacity each. ■ Milk is procured from 20 routes through different types of vehicles (can and insulated tanker system). Collection is completed by 11 am and after cooling the milk is sent to the Dutnagar plant by 1 pm. ■ Cleaning-in-process is carried out daily at the BMC. ■ The BMC requires 3000 litres of water per day for cleaning purposes. The water is obtained from piped-water supply. After cleaning the water is drained through the nearby drains. ■ The BMC consumes 1600 units of electricity per month. They have one DG set of 63 kVA which require 2 litres of diesel per hour and runs for approximately 2 hours every day. ■ The BMC does not have/require any EC or license from PCB since they are not processing or producing any product.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> The BMC has 9 staff members out of which 6 are dairy helpers (outsourced), 2 MPAs and 1 Technical Superintendent. There is only 1 female employee. Once of the main challenges faced by the BMC is that it is situated on a single lane main road. Hence this leads to vehicle congestion during the collection time everyday.
25	HP Milk Federation	07.12.2022 HP Milk Federation	Consultation with the senior manager of the milk federation	<ul style="list-style-type: none"> Milk Federation was established in 1983. The framework/model adopted was the Gujarat one. This is why there is a two-tier system prevalent in the State, i.e., the Milk Federation and it's Dairy Plants/Milk Pooling Points at one level and the Dairy Cooperative Societies (DCS) at the village level. The objective of the federation has been to encourage the formation of more numbers of DCS and daily coverage of all farmers who are engaged with them. The Milk Fed collects, processes and supplies cow milk and milk products including ghee, butter, curd, paneer, khoya, flavoured milk, lassi etc. It also manufactures panjiri and biscuits which it supplies to ICDS across the state. Further, during festive season it manufactures and sells sweets. Currently the federation operates in 11 out of 12 districts of the state. In these 11 districts it covers 36 out of total 78 blocks. Lahaul Spiti district is not covered by the Milk Fed since people of that district prefer Yak Milk which does not fall among the products of the federation. The main milk producing districts are Mandi, Shimla and Kullu One of the main challenges faced by the HP Milkfed is the low demand for liquid cow milk across the state. 1.3 lakh litres of milk is collected by the federation on a daily basis, out of which only 24000 is sold through retail/wholesale stores. The rest is used for processing into milk products as well as sold by the federation to Mother Dairy and Delhi Milk Scheme as bulk milk sale. The reason for low demand is that the federation procures 99 percent cow milk whereas the consumer preference is for buffalo milk. Also, there are several competitors in the market (other brands such as Amul, Super, Kamdhenu, Verka, Mother Dairy etc) who sell buffalo as well as cow milk.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Along with that the fact that only single time collection is possible in the state due to hilly terrain, is also a challenge for the Milkfed. Moreover, they are mandated to collect all types of milk to ensure subsistence income for farmers. This leads to a compromise on the milk quality. ■ Another challenge faced by the MilkFed is farmers' dissatisfaction with the rates provided for Milk. In Kangra district most of the milk produced is Buffalo milk. Thus, the dairy farmers are preferring selling it to Punjab where they get better rates. The Milkfed tried to address this issue by increasing the rates for buffalo milk to be at par with Punjab. But in that case the dairy farmers supplying cow milk also demanded a raise of INR 4 -5 per litre. This kind of an increase is not feasible for the Milkfed at the moment as it will be a huge financial burden. ■ Bulk Vending Machines have not been successful in HP. The main reason for that is low liquid milk sale and limited marketing initiatives. Another reason for its failure is the space constraint for installing the machine due to hilly terrain across the state. ■ The main dairy plants of the HP Milkfed are located in Shimla, Mandi and Kangra. Other districts have small processing plants of approximately 5000 litres capacity. There are a total of 23 BMCs/Chilling Centres across the state. ■ In HP the flush season is June to September and the lean season is in Winter due to the harsh climatic conditions. During the lean season procurement reduces by 40 percent. ■ Atleast 350 village level DCS across the state have AMCUs installed. This has helped in bringing transparency regarding fat and SNF content and hence milk rates. There is a heightened demand for AMCU installation across remaining DCS as well. The Milkfed is interested in taking this up as an activity under NDSP II ■ Community Milking Centres will not be feasible in HP according to the Milkfed. This is because of the terrain constraints and low milk procurement. In HP, the functions of Milkfed and Dept. of Animal Husbandry are different when it comes to dairy farming. The Milkfed looks at procurement, processing

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				and sale of milk and milk products. The DAHD is involved in animal rearing, breeding, feed and fodder management and health.
26	Chilling center and BMC	09.12.2022 Kepu Block, Shimla District	Consultation with Technical Superintendent of the center	<p>Meeting with the chilling center</p> <ul style="list-style-type: none"> ■ The plant handles 14000 litres of liquid milk per day right now. In flush season it handles approximately 25000 lpd. ■ The plant has 04 bulk milk cooling machines. Two are of 5000 litres capacity while the other two are of 500 litres capacity. It also has a milk chiller of 2000 litres capacity. ■ Rejection of milk is not so frequent. However, it is more prevalent during during monsoons due to spoilage ■ Cleaning-in-process is carried out daily at the BMC. ■ The plant requires 3000 litres of water per day for cleaning purposes. The water is obtained from a submersible pump. After cleaning the water is sent to an ETP and then drained in the nearby fields. ■ The plant consumes 3000 units of electricity per month. They also have one DG set of 163 kVA which require 4 litres of diesel per hour and runs for 2 hours every day. ■ The plant has been set-up on government land. ■ The BMC has a clearance from the State Pollution Control Board for operation of the milk chilling machine. ■ The BMC has 13 staff members out of which 10 are dairy helpers (outsourced) and 2 MPA and 1 Technical Superintendent. There is one female employee. The plant also has a facility for storing cattle feed which comes from the Hamirpur Cattle Feed Plant of HP Milkfed. It is the distribution centre for cattle feed. The facility can store 300 bags (1.5 tonnes) and receives supplies 8 – 10 times a month.
27	Veterinary Polyclinic	09.12.2022 Veterinary Polyclinic, Rampur Block	Consultation with the Veterinary Doctor	<p>Meeting with the Veterinary Polyclinic</p> <ul style="list-style-type: none"> ■ The structure of veterinary system in the state: There are Veterinary Dispensaries at the village-cluster level and Veterinary Hospitals at the block or higher level. The Veterinary Dispensary has 01 Vet Pharmacist and 01

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>Animal Husbandry Attendant. The Veterinary Hospital has 01 Vet Officer (Doctor), 01 Vet Pharmacist and 02 Animal Husbandry Assistants. Under each Vet hospital there are usually 3 – 4 Vet Dispensaries.</p> <ul style="list-style-type: none"> ■ The Veterinary Polyclinic is like a referral centre. There is 01 Vet Polyclinic in each district. It has 04 Vet Doctors, 03 Vet Pharmacists and 04 Animal Husbandry Assistants. There are 08 functional polyclinics in HP at the moment. ■ The polyclinic deals with cases which are not solved at the dispensary or hospital level. It also has the responsibility to implement district level disease outbreak control. Recently they have done so for the Lumpy Skin Disease Outbreak. Prior to that it was FMD. ■ The main issue with cattle in HP is nutritional deficiencies. Most farmers are not able to afford proper cattle feed and fodder. The dairy sector in HP is largely female farmer dominated and most have small animal herds. Hence, it becomes difficult for them to sustain this business. ■ Due to a cold climate the animals are not prone to too many diseases in the hilly areas of the state. In the plain/foothill districts the advent of diseases is more due to warmer climates. ■ Bovine Mastitis, Bovine Hematuria and Milk Fever are the commonly prevalent diseases in HP ■ The polyclinic provided mineral mixture and deworming medicines during awareness campaigns organised by it. These camps are organised 1-2 times a year as a part of relevant Government Schemes. It covers approximately 100 farmers at a time ■ One of the common practices being adopted lately by farmers here is the removal of milk fat before selling it. This is reducing the quality of milk (since fat and SNF are the two criteria for determining the quality of milk at the DCS level) and hence the rate received by farmers. In some villages there are FPOs involved with dairy farming. There the practices are improving. ■ The current focus of the polyclinic is the implementation of Departmental schemes and dealing with problems of nutritional deficiency and infertility.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>Infertility is a big challenge in the state and is being induced by poor animal nutrition and unscientific feeding practices.</p> <ul style="list-style-type: none"> ■ There are two disease investigation labs in HP district – one in Shimla and one in Mandi ■ The current treatment being provided for Bovine Mastitis is antibiotics based. Ethno Veterinary Medicine used to be practised earlier. But it is not so prevalent at the moment. This is because the younger generation has more trust in allopathic medicines. The Department is conducting some research on natural herbal preventative treatments and in some places these are being prescribed on a trial basis. E.g. Spinach root powder for warts. <p>Bio-medical waste management practices are not in place at the Vet Dispensaries or Hospitals in the state. However, the polyclinic being a larger set up has to follow proper bio-medical waste disposal practices.</p>



Table B2: Minutes of Stakeholders Consultations of Odisha

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
1	Chilling Center employees and DCS staff	06.12.2022 Adaspur Milk Chilling Center (AMCC), Cuttack, Odisha	Focus Group Discussion (FGD) Chilling Center employees and DCS staff	<p><i>Meeting with Chilling Center employees and DCS staff</i></p> <ul style="list-style-type: none"> ■ FGD with the Adaspur chilling centre employees: ■ The Chilling plant was established in 1985 ■ Comes under Cuttack Milk Union ■ There are 206 Dairy Cooperative Society (DCS) supplying milk to the chilling center, of them 175-180 DCS are currently functional. 43 of these are WDCCS (women dairy cooperative society) and 163 are ■ The chilling center handles 18,000 liters per day (LPD) of milk with average milk fat of 4.5 and average SNF of 8.2. The maximum capacity of the chilling center is 25,000 LPD. During the flush season (April to August) the per day collection goes up to 30,000 LPD. ■ 7-8,000 liters of water is consumed per day for majorly cleaning purposes: milk cans, chilling center premises, machinery, milk trucks etc. The water is drawn from a borewell, the depth of the borewell is 50ft. There are two rivers near the facility, Prachi river (100 meters) and Devi river, which are attributed to the high water levels in the region ■ The waste water generated is discharged in a drain which opens in a pit, which is present in the compound <p><i>Process:</i></p> <ul style="list-style-type: none"> ■ Milk in the AMCC directly comes from DCSs on their currently functional 16 routes (transport managed by the AMCC) and 4 BMCs (having capacity of 2,000 LPD, 2,000 LPD and 1,000 LPD) ■ The milk is weighed ■ Temperature is noted and Organoleptic test is conducted by AMCC staff ■ Test samples from every milk can is taken and 1 sample from each compartment of the milk tanker is taken by the lab staff for testing. The tests conducted are salt, sugar, neutralizer, acidity, urea, glucose, starch, flour, fat, SNF, adulteration, coliform

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				<ul style="list-style-type: none"> ■ The milk is then transferred to the bulk milk cooler. The temperature of the tank is maintained at 4° C. ■ Once the Road Milk Tanker is loaded with the chilled raw milk a sample is drawn for testing ■ The tanker is then sealed and sent to the processing and manufacturing plant of the Federation ■ The tanker milk is again tested at the processing plant and a challan is sent to the Union of the sample test results ■ If a DCS sends adulterated or spoiled milk the payment for that can is not made to the DCS. The milk is either returned or drained. The milk is drained in the water drain and flows in the pit. ■ Approx. 60L of diesel is used per month in operating DG sets (Rs. 25,000 per month). The DG sets are silent DG sets and have no soundproof box. The DG sets are maintained by an annual maintenance contractor. The diesel is stored in plastic jars and were kept right next to the bulk milk cooler. There was no proper storage space for the diesel ■ The electricity is provided by OPTCL (Odisha power transmission corporation limited) and currently is being provided by TATA power, and the electricity supply is regular and there are no major power cuts. The electricity connection is an agriculture connection with ■ The chilling facility works as an administration unit for all the DCS that supply milk to them. The track sheet is prepared by the DCS with liters of milk, fat and SNF for every member and payment is released to the DCS bank account based on the track sheet every 10 days. ■ There are two meetings that happen monthly, a) Staff review meeting with the General Manager of the Union and P&I Incharge of the chiller facility; b) A meeting at the head office in Bhuvneshwar ■ There is a Manure Management Plant at the chiller facility for the past 2 years, the machinery is present but the plant has not yet been made functional



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				<ul style="list-style-type: none"> ■ For cattle feed, mineral mixture and calcium the DCS places an order at the chiller facility. The chiller facility places the order with the Union. The Union then procures the things from the federation run cattle feed plant. ■ <u>Major Challenges:</u> ■ The machinery at the chilling center is old and needs updation. There are frequent Compressor breakdowns. When this happens the road milk tanker is loaded with the available milk and sent to the federation to avoid milk spoilage. ■ Competition from the private players. Banas dairy (Banaskantha District Cooperative Milk Federation, Palanpur) has started procuring milk in the district form the last one year, providing higher prices to the farmers thus reducing the procurement of the DCS and the Union. The dairy sends the procured milk to Calcutta for processing. ■ Other private players are Pragati, Milk moo ■ The standards set by the federation for procuring quality milk are minimum 4.0 fat and 8.0 SNF. The private players buy the milk being rejected by the cooperatives based on fat and SNF and are paying a higher price for it. They have no adulteration checks and other quality checks while providing higher rates. Primary producers are hence making a shift from the cooperative to the private players ■ The price rate set by the Government of Odisha for 1L of milk is less and is not providing enough margins for the Union, DCS to function. ■ No training and awareness programs are being conducted from 2017-18 ■ Currently there are no schemes being implemented ■ Lumpy skin disease is prevalent and is affecting the milk production of cattle ■ During CoVID a price incentive was being provided by the Government of Odisha to the dairy farmers for every liter of milk, which increased the procurement of milk. Post CoVID the incentive has stopped which has increased the number of farmers giving their milk to private players ■ There are no major schemes or services the AMCC is able to provide the farmers for their continued association, the price being provided being already low ■ Many dairy producers in the districts don't know how to milk a cow. They hire vendors to milk their cows. The mode of payment depends on the vendor, he either

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				<p>takes money (Rs. 500-600 per cow per month) or takes the milk from the producers at a low rate and sells it privately</p> <ul style="list-style-type: none"> ■ Penalty structure of Omfed is a hurdle especially during the lean season of milk production. The penalty is based on the SNF in the milk. The minimum SNF accepted by Omfed is 8.0. If a farmer brings in milk with 8.0 SNF he is charged Rs. 1 per liter as penalty. If the SNF is 8.1 the farmer is charged Rs. 0.50 per liter of milk. No penalty is charged at SNF level of 8.2 and above. The farmer brings in quality milk and are also being charged penalty, the same milk is being fetched a higher price by Private players, this is discouraging the farmers to give milk to cooperatives. ■ No first aid service is being provided to the DCS, which was previously being provided. It has been closed ■ Previously TriVac vaccine was being provided by the government which was a success, now it has been stopped in the last 3 years. <p><u>Suggestions/Requirements:</u></p> <ul style="list-style-type: none"> ■ Milking machines at DCS levels to remove the need of private vendors for milking the cows. This will also maintain the quality of the milk and increase the procurement ■ Increase the rate of the milk at the state level to effectively compete with the private players ■ Remove or change the penalty structure imposed by Omfed, especially for the lean season ■ Subsidy for cattle feed. The rising prices (Rs. 1200 by Omfed and Rs.1400 by the private sellers for 50kg) are making livestock rearing an expensive process and people are losing interest because of this. ■ Provide trainings: Farm management, calf rearing, ration balancing etc. ■ Provide vaccinations, arrange animal health camps and first aid at every DCS ■ Subsidy on mineral mixture and calcium ■ Improve the infrastructure of the chiller plant


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				 <p data-bbox="930 690 1564 716">Discussion with Chilling Center employees and DCS staff</p> 
2	DCS Members and BMC staff	06.12.2022 Jharpada DCS and BMC	Consultation with Secretary DCS and BMC operator and Junior assistant P&I	<ul style="list-style-type: none"> ■ Panchayat Jharpada. Jharpada has ~600HH of which 550HH will have milch cattle. On an average each HH rear 2 cows ■ The DCS was established in 1995. Elections are held every 5 years. 15 members are elected by the members. Currently, of the 15 members 6 are female members and 2 are SC memebrs ■ The Jharpada DCS and BMC are at the same place ■ The DCS has 80 memebers

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				<ul style="list-style-type: none"> ■ The milk is pooled in 2 shifts. 3h in the morning and 3h in the evening. The milk brought in by the dairy farmers is weighed and the fat and SNF is recorded for every farmer ■ Approximately 350-400LPD of milk is being pooled by 45 pouring members (80 total members). During the flush season the society pools ~600LPD of milk ■ Maximum 5L-10L of milk is rejected and returned per month. ■ To become a member of any DCS, the farmer has to provide milk to the society for 3 months post which a one-time payment of Rs. 11 is made. If a member wishes to leave the cooperative, 10 rupees is refunded to the member ■ Till 2015 there used to be audits at the DCS level ■ Every year from the profits of the DCS, an annual feast is organised for all the members and buckets are given as gifts ■ No NGOs are working with them <p><u>Challenges:</u></p> <ul style="list-style-type: none"> ■ Members of the DCS are complaining of the low price rate of milk, since if they provide the same milk to private players they would get more money and higher profit margins. ■ HHs buying new milch cattle are not joining the cooperative as a member, rather they prefer selling the milk to private players ■ During CoVID the government of Odisha gave 2 rupees per liter of milk as price incentive. The daily procurement of the DCS increased to ~700LPD. The incentive has been stopped now and with low milk rates and no incentives the procurement has decreased ■ Majority of the village community members do not know how to milk cows and are dependent on private vendors. The private vendors generally take the milk from the people and sell it privately or charge Rs. 500-600 per cow for a month. ■ No training and awareness programs are being conducted from 2017-18 ■ Currently there are no schemes being implemented ■ High prices of cattle feed



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				<ul style="list-style-type: none"> ■ No first aid or vaccine services are provided at the DCS level <p><u>Suggestions/Requirements:</u></p> <ul style="list-style-type: none"> ■ Milking machines at DCS levels to remove the need of private vendors for milking the cows. This will also maintain the quality of the milk and increase the procurement ■ Increase the rate of the milk at the state level to effectively compete with the private players ■ Remove or change the penalty structure imposed by Omfed, especially for the lean season ■ Subsidy for cattle feed. The rising prices (Rs. 1200 by Omfed and Rs.1400 by the private sellers for 50kg) are making livestock rearing an expensive process and people are losing interest because of this ■ Increase DCS secretary incentive per liter of milk. Currently the secretary incentive provided by the Union is 15p per liter of milk. ■ Electricity from solar energy ■ ■ FGD with the Jharpada Village BMC ■ The BMC was established in 2001 ■ The BMC has the capacity of 2000LPD ■ 7 societies provide milk to this BMC. 7 seven societies are of the villages that come under Panchayat Jharpada. ■ The infrastructure of the BMC was constructed under the DFID grant of Rs. 1 lakh ■ The BMC received approx. 1100 LPD of milk. 350-400 LPD from Jharpada DCS and ~600-700 LPD from the rest 6 societies ■ All the 7 DCS pooling milk at the DMC are in ~2km radius. The Adaspur chilling plant is ~15km from the BMC. ■ There is one DG set of 62.5KVA for times of power outages, monthly diesel requirements are 15-20L in winters and ~30L in summers. The electricity supply is from a village transformer. It is an agriculture electricity connection. On an average the electricity bill for the BMC facility is ~Rs. 2000-3000

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				<ul style="list-style-type: none"> ■ Everyday water requirement for the facility is ~1000L, water is majorly used for cleaning purposes. Water is drawn from a tubewell. The water depth of the tubewell is 130ft. No problems related to water availability were reported. ■ The wastewater is released in a pit through a drain  <p>Some pictures from the site visit</p> 
	Milk Union	07.12.2022 Cuttack Milk Union	FGD with Cuttack Milk Union	<p>Meeting with Cuttack Milk Union</p> <ul style="list-style-type: none"> ■ The Milk Union year of establishment is 1976, milk procurement begun in 1982 ■ 4 districts come under the milk union: Cuttack, Jagatsinghpur, Kendrapara & Jajpur ■ Cuttack Milk Union is the highest milk procurement union in Odisha, Jagatsinghpur district being the highest milk provider in the state <ul style="list-style-type: none"> - Total primary societies organised so far: 1622

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				<ul style="list-style-type: none"> - Functional primary societies: 1394 - Registered primary societies: 943 - Total organised farmers: 180722 - Currently 60,000 farmers are involved with the union - There are 88 total BMCs under the milk union of which 72 are presently functioning ■ Tirtol Milk Chilling Center is the only manufacturing unit under the union. All other manufacturing units for the state are under OMFED and unions don't market the products, they are only responsible for procurement of milk ■ There are 10 main chilling plant units under the union which also function as administration units for their area of operation Activities carried out by the Milk union: ■ Organisation of Anand Pattern Dairy Co-operative Societies in its area of Operation. ■ Procurement of milk from the rural milk producers from their doorstep through the Dairy co-operatives at a remunerative price. ■ Chilling/Processing of procured milk for marketing to the Urban consumers of milk & Milk Products. ■ Sale of milk and milk products to the urban consumers at a affordable price. ■ Support of Technical input activities, animal healthcare, breeding etc. Training & orientation programmes, through Training & orientation programmes, through OMFED Training & Demonstration Centre located at Jagannathpur, Khurda, and ■ Supply of Cattle Feed, produced by OMFED Cattle Feed Plant at a subsidised price to the milk producers. ■ Tirtol Milk Chilling Center provides the products to Paradip port through 7-8 parlours and ~80 booths and Kendrapara through 2-3 parlours ■ The Milk Union bears both external (milk can collection routes) and internal transportation costs. Internal transportation constitutes milk tankers for the transportation of milk from BMC to Chilling centers and from Chilling centers to Manufacturing facility at Tirtol and other manufacturing facilities. The overhead cost of transportation comes to 3.10p per liter of milk across its life cycle.



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				<ul style="list-style-type: none"> ■ Challenges: ■ Currently no schemes are being implemented by the union ■ Last scheme was implemented in 2020 under NDP-I ■ Competition from the private players. Banas dairy (Banaskantha District Cooperative Milk Federation, Palanpur) has started procuring milk in the district form the last one year, providing higher prices to the farmers thus reducing the procurement of the DCS and the Union. The dairy sends the procured milk to Calcutta for processing. ■ The union provides Rs. 32.05 per liter; Milk Moo provides Rs. 1.15 more; Pragati provides Rs. 1.17 more and Amul provides Rs. 1.67 more. The Federation is in talks with the Odisha Government for pricing changes. ■ Suggestions/Requirements: ■ CNG in vehicles for transportation will reduce costs ■ Introduction of Solar energy ■ Trainings and awareness programs  <p style="text-align: center;">Consultation pictures</p>
	Chilling centre	07.12.2022 Tirtol Milk Chilling Center	FGD with Tirtol Milk Chilling Centre	<p><i>Meeting with Tirtol Milk Chilling Center</i></p> <ul style="list-style-type: none"> ■ The Center procures 30,000 LPD of milk. Before CoVID the facility was procuring 50,000+ Liters of milk every day ■ Tirtol gets milk from 14 BMC

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				<ul style="list-style-type: none"> ■ The plant receives milk from ~300 DCS (~100 Women DCS). Till 2015-2016, 600+ DCS were providing the milk but procurement has decreased ■ The chilling center was upgraded to a dairy plant in 1981 processing 5000L of milk per day ■ There is a 20,000L capacity ATP present at the facility. ~12-15,000L of wastewater is processed every day. The treated water is used in gardening and discharged in near by agriculture fields. ■ Water is extracted from 1 tube well (depth ~200ft). The average water usage at the facility is 12,000 LPD ■ The chilling capacity of the plant is 30,000L and has 60,000L of storage tank capacity. ■ Every year the facility has audits from the food inspector, factory inspector (H&S), material audit, water testing ■ The electricity consumption of the facility is ~250-300KV every month. The electricity connection is an agricultural connection (4.60p per unit). Maximum electricity consumption is for refrigeration of milk products ■ The facility has 78 employees, including regular, contractual, casual and daily wage workers, of which 4 are female employees (1 admin, 2 lab assistants and 1 stock and store assistant) ■ Ammonia gas is used for the chilling unit ■ There are contractors for Liquid nitrogen, plastic waste, scrap and 3 trucks for milk routes ■ 2 milk trucks are owned by the Union ■ 16 tons of cattle feed is sources every alternate day by the facility to dispatch to various DCS. ■ Paneer and Ghee are packaged manually ■ Lab tests being conducted are Organoleptic, salt, sugar, neutralizer, acidity, urea, glucose, starch, flour, fat, SNF, adulteration, coliform


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				<ul style="list-style-type: none"> ■ ~100L spoiled milk is received monthly. Most of the spoiled milk is received from caned milk. No payment is provided for such cans. The spoiled milk is either returned or drained. ■ The average fat and SNF of the facility is 4.4 and 8.2 ■ 2-3 trainings are connected yearly for safety, quality of milk and culturing of milk <p>Challenges:</p> <ul style="list-style-type: none"> ■ The plant is ~40 years old. The infrastructure is old and the machinery are old ■ Frequent machinery breakdowns ■ No trainings for daily wage workers for H&S ■ Staff constraints ■ No ongoing schemes or awareness programs ■ Digitisation of cash transfers as farmers want cash ■ The distance between DCS and the facility is big and more bulk coolers are required <p>Suggestions/Requirements:</p> <ul style="list-style-type: none"> ■ CNG in vehicles for transportation will reduce costs ■ Introduction of Solar energy ■ Improved advance machinery ■ Staff technical trainings ■ Improved price structure for milk ■ Remove penalty structure ■ Provide calf feed subsidy ■ Place health camps and provide medicines at the DCS level <p>Consultation pictures</p> <div style="display: flex; justify-content: space-around;">   </div>

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	DCS and BMC	07.12.2022 Bhagalpur DCS and BMC	Consultation with village DCS and BMC	<p><i>Meeting with DCS and BMC</i></p> <ul style="list-style-type: none"> ■ 5 villages come under society (Bhagalpur, Damdarpur, Kaunpur, DEodi, Pingapuda), currently 4 villages are giving milk. Majorly Bhagalpur gives milk. ■ The society was formed in 1987 ■ The land and property belong to the society. 1 lakh was given to the society under DFID grant (because of cyclone), 3 lakh was given by OMFED and 1 lakh by society. ■ There was a functional BMC which was started at 2007 but was closed in 2017 due to inadequate funds for expenditure and wages ■ There are 140 members of the DCS and 70 functional pooling members ■ Election happens every 5 years. ■ ~ 400 LPD is collected every day in lean season and ~600 LPD milk is collected in flush season ■ The average fat and SNF of the DCS is 5.0 and 8.4 ■ The society started with 70 LPD and at its peak reached to 800 LPD before CoVID ■ Currently the society has 14 elected members (of 15). There are no women elected members, 1 SC member, 3 general and rest OBC members ■ There is hardly any spoilt milk being provided to the society ■ Every 3 months the 14 elected members meet to discuss profit and loss and increase new member participation ■ In 2km radius of the DCS there are 2 peda making factories which provide more money to the farmers than the Union without any particular milk standards or testing. This in addition to the private players has further increased the competition ■ There are milk analyzers at the DCS for milk testing ■ ~50L water is used at the DCS for cleaning purposes. It is drawn from the tube well. The wastewater is drained outside ■ Money to the DCS and then to the farmers follows a 10-day cycle. ■ The farmers want direct benefit transfer to their accounts instead of cash ■ There is 1 DG set of 7.5kV at the DCS level. Post closure of BMC the DG set is not used

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				<p>Challenges:</p> <ul style="list-style-type: none"> ■ Members of the DCS are complaining of the low price rate of milk, since if they provide the same milk to private players they would get more money and higher profit margins. ■ HHs buying new milch cattle are not joining the cooperative as a member, rather they prefer selling the milk to private players ■ During CoVID the government of Odisha gave 2 rupees per liter of milk as price incentive. The daily procurement of the DCS increased to ~700LPD. The incentive has been stopped now and with low milk rates and no incentives the procurement has decreased ■ Majority of the village community members do not know how to milk cows and are dependent on private vendors. The private vendors generally take the milk from the people and sell it privately or charge Rs. 500-600 per cow for a month. ■ No training and awareness programs are being conducted from 2017-18 ■ Currently there are no schemes being implemented ■ High prices of cattle feed ■ No first aid or vaccine services are provided at the DCS level <p>Suggestions/Requirements:</p> <ul style="list-style-type: none"> ■ Milking machines at DCS levels to remove the need of private vendors for milking the cows. This will also maintain the quality of the milk and increase the procurement ■ Increase the rate of the milk at the state level to effectively compete with the private players ■ Remove or change the penalty structure imposed by Omfed, especially for the lean season ■ Subsidy for cattle feed. The rising prices (Rs. 1200 by Omfed and Rs.1400 by the private sellers for 50kg) are making livestock rearing an expensive process and people are losing interest because of this ■ Increase DCS secretary incentive per liter of milk. Currently the secretary incentive provided by the Union is 15p per liter of milk. ■ Electricity from solar energy

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				<ul style="list-style-type: none"> ■ Provide first aid at the DCS level. It was available in 2011-2012 ■ Provide medical treatment subsidy ■ Trainings related to Calf rearing, milking of cows, clean milk collection. Farm management etc. ■ Repairing of the infrastructure and real estate of the DCS. (This was communicated to the Union, but the Union replied that there were no funds or projects for the same) ■ Subsidies cattle feed and mineral mixture ■ Increase secretary salary (currently the secretary salary is Rs. 6000 per month and that of the assistant is Rs. 5500 per month) <p>Consultation picture</p> <div style="display: flex; justify-content: space-around;">   </div>
	Veterinary Dispensary	08.12.2022 Veterinary Dispensary Kantapada	FGD with the BVO and Asst. Surgeon	<p><i>Meeting with Veterinary Dispensary</i></p> <ul style="list-style-type: none"> ■ There are 5 employees at the dispensary: 1 BVO, 1 Assistant Surgeon, 1 Program assistant, 1 attendant and 1 service provider (security guard) ■ 14 gram panchayats come under this dispensary ■ There are 11 livestock aid centres under the dispensary, Every center has one Livestock Inspector (LI) ■ There is a Chief District Veterinary Office (CDVO) under which there are 3 sub-divisional veterinary office, following which there are block veterinary offices (one in each block), there are veterinary dispensaries depending on population and then come livestock aid centers (LAC)

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				<ul style="list-style-type: none"> ■ The key role of the dispensary is treatment of the animals from its area of operations and administer schemes. The BVO and AVS provide door to door service if required and if the farmer is unable to bring the livestock to the dispensary. ■ The payment depends on the treatment. If the livestock comes to the dispensary the farmer is charged Rs. 2 for treatment. (The farmers during consultations claimed that the BVO and AVS charge anything between Rs. 300-500 when attending their livestock in the village) ■ Medicine is supplied for free by the dispensary. The medicine which is not in stock is bought by the farmers from the market. ■ The medicine is indented by CDVO ■ Major diseases prevalent in the livestock of the region: Bovine tropical theileriosis, worm infestation, Lumpy skin disease, fever, food poisoning ■ Vaccination provided by the dispensary: Herpes Mammillitis Virus, Black Quarter, Foot and Mouth Disease, Foot and Mouth Disease, Anthrax ■ Vaccination is provided by LI's and private vaccinators (based on incentives) on a daily basis. There are mobile veterinary units that have fixed routes for vaccination (fixed by BVO and approved by CDVO) ■ There is a compost pit made by panchayat which is being used for solid waste. There is no biomedical waste generated ■ The various schemes currently being implemented by the dispensary are ■ KCC for cows: Rs. 22000 is given for recurrent expenses for 2 cows ■ Mukhyamantri Krishi Udyog Yojana ■ National Artificial Insemination Program ■ Free AI drives ■ Major Challenges: ■ Staff shortage ■ There are less LI's as per the population ■ Bovine tropical theileriosis is prevalent in the area and its treatment is expensive ■ Medicine and first aid in adequate quantities

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				<ul style="list-style-type: none"> <li data-bbox="884 367 1518 423">■ Less mobile units as compared to the population Consultation pictures 

B3 Minutes of Stakeholders Consultations – Uttarakhand

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
1	Milk Union	05.12.2022 Udham Singh Nagar Dugdh Utpadak Sahakari Sangh Ltd.	Focus Group Discussion (FGD) with the Milk Union	<ul style="list-style-type: none"> ■ The Udham Singh Nagar Dairy plant/ Union Covers 20 Blocks as reported and collects milk from all the DCS. ■ The present plant started around 1997, Aanchal being the brand name of <i>Dugdh Utpadak Sahakari Sangh Ltd.</i> Milk Union has separate department for handling different type of activities. ■ Milk union has various capacity of plant for each type of processing- pasteurisation storage tank capacity- 5000 kg, Cream storage pasteurisation capacity 1000 kg and 3 Homogenization milk storage tank capacity- 2 x 20000 kg, & 15000 kg. ■ Only one tanker is owned by the milk union (1500 lit capacity) and remaining are hired tankers from third party as per the requirement. ■ Milk testing is done by their own lab present in the plant. After testing Milk union keeps the sample for 36 hr in the lab after which the testing is done by equipment i.e., Milkoscan, Lactoscan. Milk testing is done as per the standard parameter i.e., Fat % & SNF% ■ It was noted that there are two chilling plants in Rudrapur District. ■ The Udham Singh Nagar Dairy plant/ Union Covers approx. 20 Blocks as reported. This plant collects milk from all DCS's. ■ In some areas the payment is done directly by milk union and in other places, it is done through DCS via account transfer. ■ Advanced GPS is to be reported there in tanker and an emergency response plan management system is also in place. ■ Udham Singh Nagar Milk Union Supply the milk to mother dairy plant (Gajraula, Moradabad) as per the demand. ■ The collection is done two times, morning and evening in big cities and for rural markets, the collection is done once a day, i.e., in the evening. ■ Tens schemes are run by the milk union and the paste on wall in DCS centre. There are state government schemes such as NCDT, MSY MSNANO, and Central govt Schemes such as DKCC (Dairy Kishan Credit Card). ■ At plant level for quality control lab, women are more involved (currently only a woman is working).

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				<ul style="list-style-type: none"> ■ The Milk Union has provided veterinary doctor to DCS level for treatment and first aid of animal. ■ They are using glass wood insulated tanker for collection and transportation of milk. After collection of milk, the temperature of tanker 1-degree centigrade increases after 24 hr. ■ The toll-free number is used for various type of grievance handled by the administrative department in milk union, e.g., marketing issues, farmers' issues, DCS issues etc. ■ There is no dedicated Environment, Health and Safety (EHS) person available at the plant, it is being handled by a production in charge. ■ The source of water is groundwater (Tube well) with approx. 2000 KLD consumption, and the union has no permission certificate from CGWB. ■ Approx. 82448 lakh units of electricity consumed by milk union supplied by Uttarakhand electricity power Board. ■ The Milk union is using DG set capacity of 400 KVA, 250 KVA and 160 KVA for power backup. ■ Hazardous waste such as used oil in small amount is stored in a separate area with a minimal generation capacity and it is given to seller/vendor. The milk union has no authorization for handed over to authorized vendors. ■ As per milk union, there are minimum amount generation of plastic waste. Only product packaging packet (Dahi, Chach, Butter, Ghee, Milk packaging plastic packet) is generated in very small amount and so they give to local vendor. ■ The health check-up done by contractor. ■ Presently plant has solar plant, but they are not using. ■ The Milk Plant has Food safety and Standards Authority of India, License Number 10012012000199 valid up to 31.03.2023. <p><u>Initiatives</u></p> <ul style="list-style-type: none"> ■ The Milk Union wants to initiate to installation of best capacity and quality solar power plant for boiler purpose. They want to install a small capacity approx. 100 lit to 150 lit tanks for collection & reuse of steam wastewater (generated during pasteurization period) for quick steaming purpose. So, they can reduce GHG emission.
2	DCS	05.12.2022	DCS based consultation in	<ul style="list-style-type: none"> ■ Registration No- Nagla Tarai (263/252) and the DCS came into existence in 13.08.1997. This DCS is being run by Sachiv (Name- Ompal Singh, 9837401752)

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
		Nagla Tarai, block-Khatima, Udham Singh Nagar	few villages- Nagla tarai village, Sarpura Village, Jarasu Paratappur Desmesh nagrar, Harsan Village and Kulha village	<ul style="list-style-type: none"> ■ The DCS management committee constitute of 9 members who select the secretary of the respective DCS. ■ Out of total house (approx. 400) half of the households are in this DCS out of which members are female and members belong to SC community. ■ The capacity of DCS is max to 1000 litres. ■ Approx. Total 850 lit/day milk is generated in the village in both shifts, milk is collected in DCS and carried to Chilling Centre/Milk union. ■ The DCS takes initiative to take membership but as per discussion, the major concern is the lesser rate provided to the end users as compared to their private market competitor. ■ The rate for BMC is approx.36rs. /Lit and 41/lit for cows and buffalos respectively. ■ The electricity bill is paid by DCS as per commercial land law and the monthly electricity bill comes to around Rs.2500. ■ In this village, payment is made by the milk union directly to DCS, and end producers get their payment from DCS via bank account/cash. ■ There's no provision for solar plant. Some members have biogas plants but out of the total biogas plant only some biogas plants are active. ■ 200 lit of water is consumed for dairy purpose generally for milk cane cleaning, and the source of water is handpump/boring. Drainage of Wastewater generated from cleaning goes to the common Naali. ■ For Power Backup, generally Inverter is being used (Capacity 1000VA/600W). ■ The quality of milk is being checked as per standard percentage of fat and FNS. ■ Veterinary doctor is available for first aid, AI & treatment purpose of animal at minimum fees i.e., only INR 50.
3	Farmers	05.12.2022 Nagla Tarai Village	FGD with the farmers Balwant Singh Khati (4 buffalo + 4 cows) and Jitendra Singh	<ul style="list-style-type: none"> ■ As reported, milk production from his cattle is approx. 12 to 15 lit/day, nearest DCS Nagla Tarai ■ The payment is made to him directly by DCS at the monthly basis via bank account/cash. ■ As he said, the profit margin is around 30%. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator) ■ 100 lit of water is being consumed and hand pump/boring is the source of this water. ■ As per the discussion, no one has awareness and trainings about feed balancing, regarding current schemes etc.




S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
			Dhampi who have been registered by their wife's names.	<ul style="list-style-type: none"> ■ He approaches private doctor to AI process at 250-300 fee cost as they ensure guarantee for 90% result. ■ He got some amount of bonus during Diwali festival for their consistency. ■ They store fodder for animal at own land. Use to eat green chara, wheat/rice straw, feed mix (also k/s Dana), received from DCS, Jaggery, mustard cake etc. ■ They handle delivery of animal by self at own home. ■ They use shed for animal.
4.	DCS	05.12.2022 Sarpura (Newly Opened), Block-Khatima Range	FGD with the village DCS of Udham Singh Nagar	<p>Meeting with DCS</p> <ul style="list-style-type: none"> ■ The meeting was held in their village, and the information about the DCS was disclosed. ■ It was opened 4-5 days prior to our visit. ■ The DCS management committee constitute of 2 members. ■ Approx. 4 members are in this DCS, Milk Collection is done once in the morning only. ■ Approx. 8 lit/day milk generation in the village, milk is collected in DCS and Carried to Milk union directly by union van. ■ The quality of milk is being checked as per standard percentage of fat and FNS. ■ The DCS takes initiative to take membership but as per discussion, the major concern is the lesser rate provided to the end users as compared to their private market competitor. ■ Approx. less than 100 lit of water is being consumed for cleaning purpose and the source of water is handpump. ■ For Power Backup, DCS using Inverter (Capacity 1000VA/600W).
5	Farmers	05.12.2022 Harsan Village	FGD with farmers, Jarasu Pratappur Desmeshnagar	<p>Meeting with the farmers</p> <ul style="list-style-type: none"> ■ As reported, milk production from his cattle is litter per day, nearest DCS Jarasu Pratappur Desmeshnagar ■ As the per the discussion from 17 yrs he is delivering Milk to Dcs and there are other vendor DCS and Dudhiyas then also he still delivers to this DCS ■ The payment is made to him directly by DCS in ten days cycle. ■ Women are not directly involved in Dairy Activities and they in Can Washing, Feeding Animal etc. ■ Medical services are unavailable are DCS level as per Discussion.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ As per the discussion, they are such issues/Problem unavailability of medical services, Low milk rate, ■ Less number of male animal available, poor semen quality. Another problem they need salary between the period October- December as after rainy season crop are not available. ■ As per the discussion, no have awareness about fodder and DCS member had training at Union level for Various schemes Awareness. ■ Cow dung is generated used in Farms and Biogas Plant.
6	DCS	05.12.2022	FGD with Village Harsan DCS, Bajpai, Udham Singh Nagar	<p>Meeting with DCS</p> <ul style="list-style-type: none"> ■ DCS Committee is of 8 members and Supervisor Omprakash Mehta and sachiv name is Tara Singh Jetha. ■ DCS Registration no- 158/67 dated 16.04.1987. ■ Total Members approx. 35 out of which 25 are currently providing milk. ■ As per the discussion proper management system to be placed for operation. ■ The rate for BMC is 34rs. /Lit approx. for cow and 41rs/Litre for Buffalo approx. ■ As per Discussion challenges faced are Feed, Milk Rate, Vaccination. ■ As per Discussion Veterinary services are availed at DCS Centre provided by Union. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator) ■ Milk, payment is made by the milk union directly to DCS, and end producers get their payment from DCS according to Fat and SNF calculation ■ Water used for washing canes 4-5 Litre/day approx. ■ ST population is 300-400 approx. in harsan village and nearby areas. ■ Electricity is used at minimum Consumption as provided by UPCL. ■ Daily milk collection in DCS Approx 100Litr/per day. Milk is collected in aluminium cans. Capacity of 1 cane is 40 Litre. ■ As discussed, issue faced are Land, storage of feed. No information provided of Dairy Schemes. ■ Renewable energy resources are used. (Solar)
7	Farmers	05.12.2022, Harsan village	FGD with the farmers of Harsan village	<p>Meeting with the farmers</p> <ul style="list-style-type: none"> ■ As per Discussion he has 4-5 Cow and Buffalo.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ He has engaged 1 person for all the Dairy activities. Milk is given to DCS, and rest is used for Household. ■ He has owned Biogas plant which is in active state. Animal waste approx. 50-60 kg generated per day. ■ He used some part of animal waste approx. 15-20 kg per day per shift biogas plant. Gas generated is used in own household. Waste generated from Biogas Plant used as manure in own garden. ■ He has issue regarding low milk rate at DCS. No awareness or training program conducted in area for small farmers. ■ He is facing issue for veterinary services. ■ No Women involvement in dairy activities
8	DCS	05.12.2022 Kulha	FGD with the DCS of Kulha village	<p>Meeting with DCS</p> <ul style="list-style-type: none"> ■ Registration No- 299/153 and the DCS came into existence in 26.03.1992. ■ DCS management committee constitute of 9 members and 1 ST member out of 9 involved in the Committee. ■ DCS is runned by Secretary (Sachiv-Sher Singh)] ■ DCS collects milk from 5 – 6 approx. village. There is no private DCS. ■ The total members are 200 plus at present. ■ 650ltr milk collected in morning and evening as per quality (fat and SNF). ■ In this village, payment is made by the milk union directly to DCS, and end producers get their payment from DCS. ■ . ■ The rate for BMC is 34rs. /Lit approx. for cow and 41rs/Litre for Buffalo approx. ■ DCS has Notice/Black Board and they maintain records of rate for all members per shift. ■ 200 lit of water is being consumed. ■ Beneficiaries Schemes poster for Dairy Industry were displayed in DCS centre. ■ For Power Backup Inverter is used (Capacity 1000VA/600W).
9	Farmers	05.12.2022	FGD with the farmers	<ul style="list-style-type: none"> ■ As discussed, generation of milk is low in winters due unavailability of Fodder ex. Salary, Bad quality of Fodder.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ As discussed, the land is not registered on their name so difficulty in getting loan facilities. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator) ■ As per the discussion, no have awareness about fodder and DCS member had training at Union level for Various schemes Awareness. ■ They use manure in Farms and Gardening. ■ They had no Biogas plant. ■ Every person is satisfied with DCS rates.
10	Indigenous people	05.12.2022 , Kulha	FGD with the indigenous community of Kulha	<ul style="list-style-type: none"> ■ Major ST population present in Kulha village. ■ Presently 100+ houses are present. 50 % are involved in diary activities. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator) ■ As per the discussion, no have awareness about fodder and DCS member ■ Major income is from Diary. ■ They had no Biogas plant. Animal waste/uple is being used for the purpose of cooking.
11	Chilling Plant	05.12.2022 Gadarpur, Rudrapur	FGD with the chilling plant	<ul style="list-style-type: none"> ■ Organization Structure: Shift Chemist, Asst Shift chemist, Assistant and Attendant. ■ Under assistant 9 workers and 4 Security guards are working. ■ It was noted that there are Four rooms for operations (Laboratory, Milk processing and Storage Unit, Two Generator Room). ■ Milk Collection in the morning approx. 5500 litre and in the evening 3000 litre approx. ■ Electricity Consumption used from UPCL. ■ Spoilt milk are being used for making of dairy products (Dahi, chach). ■ Chilling Plant used ammonia gas for cooling purpose. ■ ETP is not in active stage. ■ Drainage of wastewater relates to common naali including whole plant. ■ Milk is collected from the DCS is 2 times in day to Chilling Centre. ■ 2 DG set Capacity of 62 KVA and 15 KVA is being Used for power backup and diesel approx.8lt/hr and 3ltr/hr is being used. ■ Water consumption is 200 KLD for major activities for washing and cleaning of storage plant at daily basis. ■ They generate minimal amount of used oil given to local vendor.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ They are not using any renewable energy resources. ■ Disposal of waste generation is managed by self/by local vendor. ■ Chilling plant is collecting milk from 100-120 DCS from nearby village and they use approx.8 no of Vehicles/Vans per day in both shift evening and morning. ■ For Milk Collection from DCS they cover Gadarpur, Bajpur, Kashipur and Deshmeshpur. ■ Tank capacity of Chilling plant is 20000 litres. ■ Temperature of Chiller 4 degree Celsius. ■ They use hot water with acid slurry and castic soda for the purpose of washing cans. ■ Tank capacity of Chilling plant is 10000 litres. ■ They are using water approx. 2000ltr/day and the source is Tube well. Use of water majorly for plant & equipment, canes washing. ■ Drainage system of wastewater connected from common naali including whole plant. ■ They are using Freon gas for cooling and maintaining the temperature of chilling plant. ■ 2 DG set Capacity of 15 KVA and 75 KVA using for power backup. ■ They generate minimal amount of used oil given to local vendor. ■ Milk collection is done from 80-85 nearby societies approx. ■ They are collecting approx. 4000 lit in morning, approx. 2000 litre in evening from nearby DCS. ■ They provide milk to mother diary as per requirement and rest of the milk goes to Milk union Khatima.



S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				   <p>Consultation with the chilling plant</p>
12	Vending Machine	05.12.2022 Rudrapur District	FGD with bulk vending machine	<p>Meeting with Vending machine team</p> <ul style="list-style-type: none"> ■ There were tankers owned by the milk union Capacity 500ltrs approx. ■ As per chilling point Rudrapur they have 5 ATM/Vending Machine. ■ Out of 5 bulk vending machine- 1 used for Bajpur, 1 used Kahipur and 1 Khatima Block. ■ The Temperature of milk stored is maintained between 0 to 1 degree Celsius. ■ Distributed to nearby Households in 5 Block as per requirement of milk consumer. ■ Transport cost is handled by milk union. ■ Cleaning is done at daily basis.


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Distribution is done two time. ■ Vending machine operated as just enter the amount (Rs) milk will be collected. ■ Consumer can buy milk from min Rs 10 and max Rs 50 or 100.
13	Retailer	05.12.2022 Sitarganj	FGD with the retailers of Sitarganj	<p>Meeting with the Retailer</p> <ul style="list-style-type: none"> ■ We had Discussion with 3-4 retailers. ■ As per Discussion they are selling Milk products of Different Brands and also, they sell loose milk generated from their Cattle farm. ■ Anchal Brand is sold approx. 13-14 litre per day. ■ Other Brand are also sold approx. 15-16 litre per day. ■ Loose milk from their Cattle farm sold approx. 12-13 litre per day. Rate for cow milk is approx. Rs 25-30 litre Buffalo. ■ Milk rate is approx. 40- 45 Rs litre also varies are per retailer. ■ Anchal brand Milk is Transported from Milk union by retailers from DCS milk collection vehicle. ■ Anchal Milk sell milk till kashipur block. ■ Some Retailer if milk packet milk gets spoil its exchanged. ■ Retailers also sell other dairy products such as paneer, Dahi, Chach etc ■ Inverter is placed for power backup. ■ Retailers provide money in only cash to milk union. ■ Retailer have concerns on rate.
14	Cattle Feed Plant	05.12.2022 Rudrapur	FGD with Cattle Field Plant	<p>Meeting with the Cattle Feed Plant</p> <ul style="list-style-type: none"> ■ As per Discussion Cattle Feed Plant was Founded in 4th December 1998 total area covered is 12 Hectare including office, Storage etc. ■ Capacity of Feed Plant is 100 MT at the basis of 3 shifts. Currently Plant is working in 2 shifts. ■ Organization Structure has been discussed for example: P and I, Administration, Quality Department, Marketing and Finance. Photo Attached. ■ Purchase of Raw material is done on the basis of quality and low-price Tender.


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Animal Feed Type which are made: Wheat Stock, Compact, Cattle Feed, Silage, Mineral Mixture etc. ■ Plant used Raw materials: De Oiled Rice Brain (DROB), Rice Brain (RB), Deoiled mustard cake, mustard oil cake, urea (replaced by SRN SILVER RELEASING Nitrogen), salt, corn, Calcied powder, Mineral mixture, soya extract, Bgrade Molasis etc. ■ They use Gunny bags for handling raw material rice brain. ■ Plant is using such type of vitamins: Vitamin A, Vitamin B3 and Vitamin E for the process of making animal feed. ■ Waste Generated such as Gunny bags and Plastic is Handled by local vendor. ■ Dustbin are used in plant premises. ■ Making of Wheat straw is handled manually. Plant has one Automated machine for processing wheat straw. But this machine is not in active due to there are issues in the machine while operating. They want some advanced automated machine for processing of wheat straw. ■ Plant is making two types of wheat straw based on % of Raw material: ■ Rahat Brand- 10% Molasis +90% wheat straw ■ Dudharu Brand- 70 % wheat straw + 20 % Feed cattle+ 10% Molasis. ■ They have provided the list of all Raw material at standard of quality checks. ■ They have provided rate list and yearly records for progress report. ■ Feed is packed in bags made up of HDPE Material. ■ As per Staff suggestion they want research and Development to be done for shortage of silage. ■ Plant is using DG set of Capacity 250 KVA and used oil is handled by local vendor. ■ For Air Circulation in Plant chamber normal Exhaust has been used. Hence dust particles are generated during handling, Processing of Raw Material. ■ They have got some advanced technology for removing dust particles in processing plant. ■ They provide Flow chart and Pictures of cattle feed and other products. ■ As per Discussion They have Fire NOC, CTO. ■ They are using Tube well water and they do not have permission from CGWA. ■ They Provide animal feed for Different districts in Uttarakhand as per their requirement.
15	Milk Federation	05.12.2022	FGD with the milk federation	Meeting with The Milk Federation

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
		UCDF Ltd mangal Parao,, Haldwani		<ul style="list-style-type: none"> ■ Milk federation has three tiers system i.e., DCS village level, Milk Union district level and Milk federation state level. ■ It was noted that there are 13 Districts>11 Milk Union>Total 4356 Primary Society (DCS)>2610 Functional DCS. ■ Total no. of 2610 DCS engaged to 1078000 members out of which at present time only 59400 no. of member is connected from DCS. ■ As per information, Mobile medical unit has been started from November. ■ In flush season (after 15 Dec) milk generation is increased and in summer season milk is decreased. ■ In order to increase water availability at plant, they suggested- ■ They are facing challenges issues to installation of good quality of ETP due to high cost and maintenance cost and workers for the handling of ETP. Also, they suggest for storage tank to collection of treated water. ■ less water consuming plant/tress should be planted. ■ To install Rainwater Harvesting structure in chilling centre, DCS and milk union for use of activities. ■ Ascertain their energy and power demand, they suggested that ■ utilize solar energy via installation of solar panels (including roof top) in the premises. ■ Installation of Biogas Plant at DCS/village level & milk centre. ■ Technical person should be allocated for their operational and maintenance. ■ They suggested that all type of training and awareness program related to dairy activity should be done at village level. Also, they suggested that to utilize the reach of Social Media (like WhatsApp) to increase the awareness. ■ In order to mitigate the air pollution, they suggested- ■ gunny bags may be replaced with the alternate material that reduces dust in the feed plant. ■ Cyclone filter/roof exhaust should be installed mainly in feed plant. ■ In order to bio medical waste generated should be handed over to common bio medical waste facility instead of installing their own bio medical waste facility. ■ They pointed out, shortage of manpower is the big issue, and more manpower should be engaged in specially in veterinary department.
16	Milk Union	11.12.2022 Haridwar	FGD with the milk union	Meeting with the Milk Union


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Aanchal” is the Brand name of the Haridwar Milk Plant. The present plant started around 2006. ■ The capacity of the plant capacity in approx. 30000 lit/day. ■ Milk Union has separate department for handling the different type of activities such as P& I Department, Administration, Marketing & Finance department, and the milk union department have respective govt. appointed persons/ officers such as Manager, Factory manager, lab quality expert, Field Organiser, Route In-charge, Veterinary Officer, store in-charge and field in-charge etc. ■ The milk products are Packet Milk (1L,6L), Doubled Toned milk, Standard Milk, Toned Milk and Full Cream milk. Also other products are Dahi, Dahi cup, Chaas, Paneer, Ghee , Khoya, Table Butter. ■ Dairy Plant covers 5 districts. Union has 6 Blocks, 338 society, Functional are 241. ■ It was noted that there is no chilling plant in the Haridwar district and also as per Discussion new Chilling plant is under construction. This plant collects milk from DCS and stores in BMC. ■ Plant processing is done in following part i.e., Collection, Weighing, Chilling, Storage Tank, Pasteurisation, Packaging, Washing. ■ The collection is done two times in the morning and evening in big cities and for rural markets, the collection is done once a day, i.e., in the evening. ■ 1 tankers are owned by the milk union (capacity of tanker Approx 10000 L) and others by a third party. ■ The plant is registered under Quality Management System (ISO: 9001:2015), FSSAI(Expired in March 2022) and Calibration Certificate (Expired June 2021). ■ As per Discussion Plant will undergo some Construction work from next two weeks ■ The plant is registered under Labour law and Fitness Certificate was provided. ■ At plant level for quality control lab no women are involved for requirement. ■ There are central government schemes such as KCC (Kishan Credit Card) and NCDT (a loan for buying 5 Animal).As per discussion they are face challenges in NCDT schemes and also one more scheme named Ganga gai Mahila Yojana (Approx 20000 Subsidy) has been closed. ■ The toll-free number is used for various type of grievance handled by the administrative department in milk union. ex. For marketing issues, farmers' issues, DCS issues etc. ■ The milk Union has provided veterinary doctor to DCS level for treatment and first aid of animal. ■ As per Discussion smaller farmers facing issue with schemes.


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ As per Discussion during the Lumpy epidemic which came from Africa first infected cattle was found in Haridwar, Uttarakhand. ■ There is no dedicated EHS person available at the plant, it is being handled by Unit Incharge. ■ groundwater with 600 KLD consumption ■ The plant is having ETP capacity of 50 KLD ETP plant. The treated is being used for gardening and land landscaping. ■ Approx. 1 lakh 70000 units of electricity supplied by UPCL. ■ For Power Backup 2 DG Set 160 kv and 182 KV. ■ Presently plant has no solar plant. ■ The plastic waste generation for which the plant tenders for Disposal. <div style="display: flex; justify-content: space-around; align-items: center;">   </div>


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				
17	DCS	11.12.2022 Kheda Jat, Narsan, Haridwar	FGD with Kheda Jat village, Khelmau Village, Manakpur Adampur nagar Village, Khedi Shikohpur Village and Gaidikhata village	<p>Meeting with DCS</p> <ul style="list-style-type: none"> ■ Registration No- Khedajat(122) and the DCS came into existence in 2011. ■ The DCS management committee constitute of 9 members who select the secretary of the respective DCS. ■ Approx. 33 members are in this DCS out of which members are 23 are OBC and 10 members belong to SC community. ■ The capacity of DCS is max to 300 litres. ■ Approx. Total 28-30 lit/day milk generation in the village, milk is collected in DCS and Carried to Milk union. ■ The DCS takes initiative to take membership but as per discussion, the major concern is the lesser rate provided to the end users as compared to their private market competitor. ■ The rate for milk is approx. 45 rs/Litre and 4rs/Litre Incentive for cows and buffalo respectively. ■ .200 lit of water is being consumed for dairy purpose generally for milk cane cleaning and the source of water is handpump/boring. Drainage of Wastewater generated from cleaning in common Naali. ■ For Power Backup, generally Inverter is being used (Capacity 1000VA/600W). ■ The quality of milk is being checked as per standard percentage of fat and FNS. ■ Veterinary doctor is available for first aid, AI & treatment purpose of animal at minimum fees i.e., only INR 50.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
18	Farmers	11.12.2022 Kheda Jat, Narsan, Haridwar	FGD with two farmers	<p><i>Meeting with the Farmers</i></p> <ul style="list-style-type: none"> ■ Approx. Total 5-7 lit/day milk generation, milk is collected in DCS and Carried to Milk union. ■ The DCS takes initiative to take membership but as per discussion, the major concern is the lesser rate provided to the end users as compared to their private market competitor. ■ 100 lit of water is being consumed and handpump/boring is the source of this water. ■ He approaches private doctor to AI process at 250-300 fee cost as they ensure guarantee for 90% result. ■ As per Discussion he got some amount of bonus and also have issue with Bonus. ■ They store fodder for animal at own land. ■ They handle delivery of animal by self at own home. ■ They use shed for animal.  <p>Consultation with the DCS</p>
19	Indigenous people	11.12.2022 Kheda Jat, Haridwar	FGD with the indigenous community	<p><i>Meeting with the Indigenous People</i></p> <ul style="list-style-type: none"> ■ ST population present in Khedajat village. ■ Presently 5% houses are involved in diary activities and many farmers have faced issue with Lumpy. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator) ■ As per the discussion, no have awareness about fodder and DCS member. Also no awareness on Schemes. They need Scheme information to be given to everyone in village via Pamphlet or poster.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> They had no Biogas plant.
20	Village DCS	11.12.2022 Sherpur Khelmau, block-Narsan	FGD with Sherpur Village DCS	<ul style="list-style-type: none"> Registration No- Sherpur Khelmau and the DCS came into existence in 2006. The DCS management committee constitute of 9 members who select the secretary of the respective DCS. Approx. 93 members are in this DCS out of which members are 29 are ST and 60 members belong to SC community. The capacity of DCS is max to 300 litres. Approx. Total 80 lit/day milk generation in the village, milk is collected in DCS and Carried to Milk union. The DCS takes initiative to take membership but as per discussion, the major concern is the lesser rate provided to the end users as compared to their private market competitor. The DCS takes initiative to take Monthly Meeting for Awareness and Register is Maintained. The electricity bill is paid by DCS as per commercial land law and the monthly electricity bill comes to around approx. rs.1500- 2000. Approx. less than 100 lit of water is being consumed for cleaning purpose and the source of water is handpump. For Power Backup, DCS using Inverter (Capacity 1000VA/600W).
21	Women	09.12.2022 Sherpur Khelmau, Block-Narsan, Haridwar	FGD with women	<p>Meeting with the Women's group</p> <ul style="list-style-type: none"> As reported, each family have only 1 or 2 animal Average no. of cows/buffalo in-milk. The women were aware about Dairy Business. Women in village are involved in dairying activities. The women doing animal rearing at house. Major challenges for less rate. Awareness & training program required for various schemes related to diary Industry They give milk to Dudhijas for getting higher rate than DCS. Some people have not their own land. They have not land for animal rearing. They are using own house part for the animal.


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				
22	Village Veterinarian/Veterinary Hospital	09.12.2022 Zhabarada, Haridwar, Uttarakhand	FGD with the village veterinary community	<p>Meeting with the Village Veterinary Hospital</p> <ul style="list-style-type: none"> ■ As per the conversation with Dr Ravindra Kumar Discussion activities such as Treatment, Disease Control, Improvement and Conservation of Breed (AI) Facility are handled. 1 Dispensary for Approx 7-8 Villages ■ Farmer will give information of the Disease and then Treatment is done. Two type of services are Window Service or Home Service. ■ Organisational Chart: 1 Veterinary Officer > 1 Chief Pharmacist and 1 Vaccinator > 2 Pashudhan Sayak. ■ As per Discussion Treatment is free just 10rs Government Levy is Charged and Medicines are free. ■ Vaccination : FMD, BQ, HS, PRP, Lumpy. FMD is Free for 6 Month, HS IS 1rs yearly and lumpy for time being was free. ■ As per Discussion they are Normal Fridge for Vaccine and Cold Cabinet for Vaccine. ■ As per Discussion cattle majorly affected by Pneumonia, Fever, etc. ■ Water Consumption per cattle is Approx 10L per day its used for Drinking, Processing and Cleaning and water source water board connection. ■ As per Discussion approx. 100-200 unit of Electricity is used per month. They Also need Facility of Inverter or Solar Plant. ■ No waste water management ■ As Per Discussion Bio Hazard Waste Management is done. <p>Initiatives:</p> <ul style="list-style-type: none"> ■ As Dairy Sector operations are getting low there should be good practices introduce in Veterinary Hospital


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ie Staff recruitment , well developed training session for Farmers for primary medication. 
23	DCS	09.12.2022 Manakpur Adampur, Block- Bhagwanpur	FGD with the village DCS	<p>Meeting with DCS</p> <ul style="list-style-type: none"> DCS Centre was closed. Information collected from Family member. As per Discussion Approx. 52 members are in this DCS out of which members 10 members are giving Milk. Milk collected was 40L/per day and only one time in morning its Collected Carried to Milk union. As per Discussion it was observed that other milk union give better rate so collection of milk is lesser.
24	Village Veterinary Hospital	09.12.2022	FGD with Village Veterinary Hospital	<p>Meeting with Village Veterinary Hospital</p> <ul style="list-style-type: none"> Dr Rohit Singh was not available at the Hospital and Consultation was done with Pharmacist Himat Kumar. As per Discussion activities such as Treatment, Disease Control, Improvement and Conservation of Breed (AI) Facility are handled. 1 Dispensary for Approx 7-8 Villages. Farmer will give information of the Disease and then Treatment is done. Two type of services are Window Service or Home Service. Organisational Chart: 1 Veterinary Officer> 1Chief Pharmacist and 1 Vaccinator>2 Pashudhan Sayak. As per Discussion Treatment is free just 10rs Government Levy is Charged and Medicines are free.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Vaccination : FMD,BQ,HS,PRP,Lumpy.FMD. ■ As per Discussion cattle majorly affected by Pneumonia,Fever,etc. ■ Water Consumption per cattle is Approx 10L per day its used for Drinking, Processing and Cleaning and water source was water board connection. ■ As per Discussion approx. 200 unit of Electricity is used per month. They also need Facility of Invertor or Solar Plant. ■ No wastewater management. ■ As Per Discussion Biohazard Waste Management was taken care by Doctor Himself.
25	DCS	09.12.2022 Gaidikhat a, Block-Laldhang, Haridwar	FGD with the village DCS	<p>Meeting with DCS</p> <ul style="list-style-type: none"> ■ Registration No- Not available and the DCS came into existence in June 2021. This DCS is being run by Sachiv (Name- Harvinder Singh) ■ The DCS management committee constitute of 9 members who select the secretary of the respective DCS. ■ 31 members are there in DCS but 7 people are now giving Milk. ■ Approx. Total 20 lit/day milk generation, milk is collected in DCS and Carried to Milk union in morning. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator) ■ As per the discussion, no have awareness and trainings about feed balancing, regarding current schemes etc. ■ They have 2 Cans (40L each) for Milk Storage.  <p>Register book of DCS</p>

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
26	DCS	09.12.2022 Gurjar Basti, Block- Laldhang	FGD with village DCS	<p>Meeting with DCS</p> <ul style="list-style-type: none"> ■ Registration No- Not available and the DCS came into existence in June 2021. This DCS is being run by Sachiv (Name- Harvinder Singh) ■ The DCS management committee constitute of 9 members who select the secretary of the respective DCS. ■ Approx. Total 100 lit/day milk generation, milk is collected in DCS and Carried to Milk union in morning. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator) ■ Approx 100-150 lit of water is being consumed and handpump/boring is the source of this water. ■ .. ■ They have 10 Cans (40L each) for Milk Storage. ■ They need Facility such has solar.
27	Milk Union	12.12.2022 Milk Union, Dehradun	FGD with the milk union	<p>Meeting with the Milk Union</p> <ul style="list-style-type: none"> ■ “Aanchal” is the Brand name of the Dehradun Milk Plant. The present plant started around 1956 and Registration No.535 ■ The capacity of the plant is Approx 18000 lit/day. Approx 7000 litre/day plant procures from DCS and 15000 litre/day from Haridwar and Uddamsingh Nagar Milk union. ■ Milk Union has separate department for handling the different type of activities such as P& I Department, Administration, Marketing & Finance department, have respective govt. appointed persons/officers such as Manager, Factory manager, lab quality expert, Field Organiser, Route In-charge, Veterinary Officer, store in-charge and field in-charge etc. ■ As per Discussion in 1968 New Zealand Government has given Machineries for Milk Plant. ■ The milk products are Packet Milk (1L,2L,6L), Doubled Toned milk, Standard Milk, Toned Milk and Full Cream milk. Also other products are Flavoured Milk, Dahi, Dahi cup, Chaas, Paneer, Ghee ,Butter. ■ Dairy Plant covers has 7 Blocks, 459 society, Functional are 207. ■ It was noted that there are 4 chilling plant. This plant collects milk from DCS and stores in Chilling Plantg.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Plant processing is done in following part i.e., Collection, Weighing, Chilling, Storage Tank, Pasteurisation, Packaging, Washing. ■ The collection is done two times in the morning and evening in big cities and for rural markets, the collection is done once a day, i.e., in the evening. ■ Milk Quality is checked as per Fat and SNF. They Procure mix milk rate 42 rs for Fat 6.5% and SNF 9. ■ 1 tanker are owned by the milk union (capacity of tanker Approx 5000 L) and others by a third party. ■ The plant is registered under Quality Management System (ISO: 9001:2015), FSSAI . ■ The plant is registered under Labour law and Fitness Certificate was provided. ■ At plant level for quality control lab women are involved. ■ There are central government schemes such as KCC (Kishan Credit Card) and NCDT (a loan for buying 5 Animal). As per discussion they are face challenges in NCDT schemes. ■ The toll-free number (18001804129) is used for various type of grievance handled by the administrative department in milk union. ex. For marketing issues, farmers' issues, DCS issues etc. ■ Milk union procures Milk from Tehri garhwal Approx 300L/Per day. ■ As per discussion plant use to make products for Amul. Milk Consumption was 35000L/per day. ■ Contract was ended in Oct 2022. Reason Provided was Rate issue. ■ The milk Union has provided veterinary doctor to DCS level for treatment and first aid of animal. ■ As per Discussion procurement of milk is major challenge and also for Marketing point of view there are 20+ Competitor. ■ As per discussion Tanker milk are first checked by Quality Department then used. Milk can be rejected due to presence of Maltose and other ingredients. ■ As per Discussion smaller farmers facing issue with schemes. ■ L ■ There are two boilers they are not Functional. Also they have hired a private party for steam generation(Capacity 1.5 ton) and rate is 3650 rs per ton and Consumption per day is approx. 6-7 Ton Per day. ■ There is no dedicated EHS person available at the plant, it is being handled by Unit Incharge. ■ The plant is having ETP capacity of 20 KLD ETP plant have three. The treated is being used for gardening and land landscaping.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Approx. 50000 units of electricity supplied by UPCL. ■ For Power Backup 2 DG Set 120 KV and 180 KV. ■ Presently plant has no solar plant. ■ The plastic waste generation for which the plant tenders for Disposal <p>Initiatives:</p> <ul style="list-style-type: none"> ■ The Milk Union wants from marketing point of view Cluster Management system (All the three union must work Together to reduce procurement cost), quality solar power plant for Electricity, Modernized ETP. They also need 10KL Pasteurizer, Homogenizer, Cream Separator, Big Cold Storage, Big Overhead Tank 10000L Each and Weighing Machine. 
28	Chilling plant	12.12.2022 Herbertpur, Vikas Nagar.Dehr adun	FGD with the chilling plant	<p>Meeting with the team of Chilling plant</p> <ul style="list-style-type: none"> ■ Sunita Bansal is In charge of Chilling Plant. ■ Organization Structure:1 In charge, 3 Attendant. ■ Milk Collection in the morning approx. 1650 litre per day. ■ Capacity of Chilling Centre 2 tank 2000L and 1000L. ■ Electricity Consumption 817 unit used from UPCL. ■ Drainage of wastewater is done in Pit. ■ Milk is collected from the DCS is 2 times in day to Chilling Centre. ■ 1 DG set Capacity of 10 KVA is being Used for power backup and diesel approx. 27L Per day is being used. ■ Water consumption is 2000L/per day for major activities for washing and cleaning of storage plant at daily basis. ■ They are not using any renewable energy resources. ■ Chilling plant is collecting milk from 33 DCS from nearby village.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> As per Discussion Chilling has storage and Distribution room for Feed. 
29	DCS	12.12.2022 Bhullawala (Zabarawal 1)	FGD with the village DCS of Bhullawala, Zabarawal-1	<p>Meeting with the village DCS</p> <ul style="list-style-type: none"> Registration No- 718 and the DCS came into existence in 1966. This DCS is being run by Sachiv (Name- Dhurmal Singh) The DCS management committee constitute of 9 members who select the secretary of the respective DCS. Out of total house (approx.70-80) Approx. 71 members are in this DCS. The capacity of DCS is max to Approx 3 – 3.5 qunital. Approx. Total 40-50 lit/day milk generation in the village, milk is collected in DCS and Carried to Milk union. The DCS takes initiative to take membership but as per discussion, the major concern is the lesser rate provided to the end users as compared to their private market competitor. The rate for milk is approx.42 rs/Lit for both cows and buffalo respectively. 100 lit of water is being consumed for dairy purpose generally for milk cane cleaning and the source of water is Jal Board. Drainage of Wastewater generated from cleaning in common Naali. For Power Backup, generally Inverter is being used (Capacity 1000VA/600W). Veterinary doctor is available for first aid, AI & treatment purpose of animal at minimum fees i.e., only INR 50.
30	Farmers	12.12.2022 Bhullawala (Zabarawal 1)	FGD with farmers of Bhullawala Zabarawal-1	<p>Meeting with the farmers</p> <ul style="list-style-type: none"> Approx. Total 5-7 lit/day milk generation, milk is collected in DCS and Carried to Milk union. The DCS takes initiative to take membership but as per discussion, the major concern is the lesser rate provided to the end users as compared to their private market competitor.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ As per Discussion he has 8 cows and milking cow are 2. ■ The payment is made to him directly by DCS at the monthly basis via bank account/cash. ■ 300 lit of water is being consumed and Jalboard is the source of this water. ■ Cow dung is generated used in farms, gardens as a manure. ■ No provision for solar plant and Bio gas plant is not operational. ■ As per Discussion incentive payment are done late. ■ They store fodder for animal at own land. ■ As per Discussion DUSK Scheme was initiated by union. ■ They use shed for animal.
31	DCS	12.12.2022 Bhullawala (Zabarawal 2),	FGD with village DCS	<p>Meeting with the village DCS</p> <ul style="list-style-type: none"> ■ This DCS is being run by Sachiv (Name- Amarjeet Singh) ■ The DCS management committee constitute of 9 members who select the secretary of the respective DCS. ■ Out of total house (approx. 150) Approx 25- 30 members are providing milk. ■ The capacity of DCS is max to 200 litres. ■ The DCS takes initiative to take Monthly Meetings for Awareness and Register is maintained. ■ No renewal energy source is being used such as solar plant. ■ Approx. less than 200 lit of water is being consumed for cleaning purpose and the source of water is Jal Board. ■ Details for all DCS members, Milk were maintained by Oright App. ■ For Power Backup, DCS using Inverter (Capacity 1000VA/600W).
32	DCS	Village DCS, BhattNagar , Block- Doiwala	FGD with village DCS	<p>Meeting with the village DCS</p> <ul style="list-style-type: none"> ■ Registration No- 247 and the DCS came into existence in 2001. This DCS is being run by Sachiv (Name- Gulab Singh) ■ The DCS management committee constitute of 9 members who select the secretary of the respective DCS. ■ 103 members are there in DCS but 32 people are now giving Milk.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ The capacity of DCS is max to 400-500 litres ■ Approx. Total 110 lit/day milk generation, milk is collected in DCS and Carried to Milk union in morning. ■ As per the discussion, no have awareness and trainings about Ration balancing, regarding current schemes etc. ■ The DCS takes initiative to take membership but as per discussion, the major concern is the lesser rate provided to the end users as compared to their private market competitor. Also lesser Milk generation in DCS due to Farmers giving their directly to end user, As the area is getting developed in city. ■ For Power Backup, DCS using Inverter (Capacity 1000VA/600W).
33	DCS	12.12.2022 Ghamandpur, Block-Doiwala	FGD with village DCS of Ghamadpur	<p>Meeting with the village DCS</p> <ul style="list-style-type: none"> ■ Registration No- Not available and the DCS came into existence in June 2021. This DCS is being run by Sachiv (Name- Bala Devi) ■ The DCS management committee constitute of 9 members who select the secretary of the respective DCS. ■ Approx. Total 140-160 lit/day milk generation, milk is collected in DCS and Carried to Milk union in morning. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator) ■ Approx 100-150 lit of water is being consumed and handpump/boring is the source of this water. ■ They have 10 Cans (40L each) for Milk Storage. ■ They need Facility such has solar.
34	Farmer	12.12.2022 Ghamandpur, Block-Doiwala, Dehradun	Discussion with a farmer of Ghamandpur, Block-Doiwala, Dehradun	<p>Meeting with the farmers</p> <ul style="list-style-type: none"> ■ As reported, milk production from his cattle is approx. 50 lit/day, nearest DCS Bhatnagari ■ The payment is made to him directly by DCS at the monthly basis via bank account/cash. ■ His wife is involved in the dairy business in his family. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator) ■ 100 lit of water is being consumed and handpump/boring is the source of this water. ■ As per the discussion, need awareness and trainings about feed balancing, regarding current schemes etc.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Cow dung is generated used in farms, gardens as a manure. ■ They use shed for animal. ■ As per Discussion in Jhilla Yojana scheme for Cattle Feed 963 rs for 50 Kg Bag subsidy of 300 given it comes directly into their account. He suggested Subsidy should be provided directly at the time of Buying. ■ Also he has visited some other State for Dairy Development in the Visit their he saw one window scheme were farmers submit their milk get money and then with that money they can feed or medicines. In Dehradun Milk Union Scheme they need to wait for Subsidy.
35	Animal Husbandry Department	12.12.2022 Dehradun	FGD with the animal husbandry department	<p><i>Meeting with the Animal Husbandry Department</i></p> <ul style="list-style-type: none"> ■ In Uttarakhand maximum farmers are Marginal and submarginal. ■ In Animal Husbandry Department is Backbone. ■ Animal Husbandry department has social economic impact. For Social Structure Animal Husbandry is considered. ■ Now adays farmers are shifting from Traditional agriculture to Organised Animal Husbandry Farming. ■ Activities of Animal Husbandry Department: Treatment, Disease Control, Breed Improvement and Conservation, Fodder Development and Upliftment of Farmers. ■ Treatment: Treatment is done at Hospital,LEO Centre, Farmers Doorstep Services. In some parts there are Radiology units. Endo and Acto parasites are controlled by medication, Drenching and Dipping. Camps are organised for Treatment. ■ Disease Control: Vaccination, Vaccination Drive-FMD,BQ,HS,PPR covered by NADCP ■ Improvement and Conservation of Breed: For Unwanted and Inferior quality male castration (Removing Testicles) is done. AI is free of cost. SSS (Sex Sorted Serum) is developed in Rishikesh cost of SSS is 1150 per dose for now it's free for farmers. ■ Development and Upliftment of Farmers: Animal husbandry department to improve production and Breed of animal helps the farmers. Also protects animal from STD. Animal Husbandry department give help to AI Technician, Government Doctors, Pharmacist, Livestock extension officer, PVT Dr. Animal Husbandry Department Trains volunteer known as Maitris/Pashusaki. ■ Animal Husbandry Department for Improvement and Conservation of breed in remote areas where AI is not available they do Natural breeding with good quality bull.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Animal Husbandry Department taken initiative for Embryo Transfer Technology (ETT). Embryo is imported in surrogate mother. Bull required are very cheap. ■ Animal Husbandry department in Kalsi Farm superabulate 15-20 ovum in Fertilization Lab. In this ovum is inserted in recipient animal ie from 1 cow 15-20 cows can be born. This totally monitored process and also it done to increase Milk and conserve Breed. ■ Animal Husbandry Department runs Cattle Breeding Farm also they are doing integrated activities such as Electricity generation from Manure Bio gas generator, Gau mutra Distillation Plant, Unit of Compact feed plant, Also they have Embryo Transfer Technique which is centre of excellence and Government of india Recommendation. It works for exclusive Conservation of Indigenious Breed. ■ Fodder Development Program schemes such as National Livestock Mission. In this Scheme Barren Land or Panchyat land are given to SHG and WSHG for irrigation, Fodder and roots. ■ Animal Husbandry department work for vulnerable Farmers such as Gopalan Yojana for SC/ST 1 cattle. ■ There is also scheme of Gau palan Yojana for BPL and General people carried out District level. ■ Animal Husbandry Department has carried out pilot project under government of india in Dehradun and Haridwar for Livestock (NDLM National Digital Livestock Mission). It includes Pashu Adhar(Animal are tag with UID).App is developed E-Gopala APP. We can find all the vaccination details, AI Details and insurance details.it helps for Traceability (Event, Transcation ,AI, Vaccination, Bull details) ■ NAIP SCHEME AI is free. ■ Animal Husbandry department is linked other department such as Agriculture, Horticulture, Fisheries, Dairy etc. ■ Land acquisition for Infrastructure by government or gram panchayat. ■ Training for farmers in different schemes, Exposure visit, Filed staff refreshers course overall india. ■ Institutional Capacity: Directorate-1person > Assistant Directorate-2 person (Division Level)>1 Person CVO/DCVO>Block senior VO>VO>Livestock Extension officer (LEO). ■ For AI Facilities there are 30 Hospital in Dehradun and 50 LEO Centres. ■ For issue of grazing Compact feed plant in Kalsi. ■ Teat infection its uncontrolled disease it causes due to managerial issue.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
36	Food Inspector	12.12.2022 Dehradun	FGD with the food inspector	<p><i>Meeting with the food inspector</i></p> <ul style="list-style-type: none"> ■ As per discussion they have sampling target as per state FDI Direction. ■ Sample is taken then send to lab for checks according to report Legal actions are taken. ■ Training such as Food safety, quality, Jagrukta training, FSSAI Nation-wide training program. ■ Audit for Hygiene, also training for third party. ■ Auditor training for Food safety audits. ■ Food Inspector>Safety Food Officer>Designated Safety officer. ■ Quality checks are done in government Laboratory. Parameters are Adulteration, Water, urea, starch ■ For Adulteration check points Milk has water issue, in paneer Milk powder, vegetable oil is added. ■ They also check Hygiene conditions, sanitary conditions and Storage Conditions. ■ Legislations are as per state>Centre food safety act.
37	Vending machine	12.12.202 Dehradun		<p><i>Meeting with the vending machine</i></p> <ul style="list-style-type: none"> ■ There were tankers owned by the milk union Capacity 500ltrs approx. ■ As per Milk plant they have 9 ATM/Vending Machine and 7 are Functional. ■ The Temperature of milk maintain between 0 to1 degree Celsius. ■ Distributed to nearby Households in 5 Block as per requirement of milk consumer. ■ Transport cost is handled by milk union. ■ Cleaning is done at daily basis. ■ Distribution is done two time. ■ Vending machine operated as just enter the amount (Rs) milk will be collected. ■ Consumer can buy milk from min Rs 10 and max Rs 50 or 100.
38	DCS	12.12.2022 Mahila Sorna, Block-Vikas Nagar	FGD with village DCS	<p><i>Meeting with DCS</i></p> <ul style="list-style-type: none"> ■ Registration No- 259 and the DCS came into existence in March 2006. This DCS is being run by Sachiv (Name- Kamal Kumar).Total members are approx 55-60 and members giving their milk are approx 25-30. ■ The DCS management committee constitute of 9 members who select the secretary of the respective DCS.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Approx. Total 70 lit/day milk generation, milk is collected in DCS and Carried to Milk union in morning in winter. ■ Capacity of this DCS Centre is 1-2 Quintal. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator) ■ Approx 50-100 lit of water is being consumed and handpump/boring is the source of this water. ■ They have 2 Cans (40L each) for Milk Storage. ■ They need Facility such has solar. ■ For Power Backup, DCS using Inverter (Capacity 1000VA/600W).
39	Farmers	12.12.2022 Mahila Sorna, Block-Vikas Nagar	FGD with farmers	<p>Meeting with the farmers</p> <ul style="list-style-type: none"> ■ As reported, milk production from his cattle is approx. 10-15 lit/day, nearest DCS Mahila Sorna ■ The payment is made to him directly by DCS at the monthly basis via bank account/cash. ■ His wife is involved in the dairy business in his family. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator) ■ 100 lit of water is being consumed and handpump/boring is the source of this water. ■ As per the discussion, need awareness and trainings about feed balancing, regarding current schemes etc. ■ Cow dung is generated used in farms, gardens as a manure. ■ As per discussion Monthly meeting is carried out and MOM register is maintained. ■ As per Discussion he wants union to carry out exhibition related to Dairy, awareness of Medicines at village level, Advisory for schemes, also awareness of new techniques related to dairy sector.
40	Village DCS	12.12.2022 Barwa, Block-Vikas Nagar	FGD with village DCS	<p>Meeting with DCS</p> <ul style="list-style-type: none"> ■ Registration No- 109 and the DCS came into existence in April 1990. This DCS is being run by Sachiv (Name- Rohit Kumar). Total members are approx 97 and members giving their milk are approx 25-30. ■ The DCS management committee constitute of 9 members who select the secretary of the respective DCS. ■ Approx. Total 125 lit/day milk generation, milk is collected in DCS and Carried to Milk union in morning in winter. ■ Quality of milk tested with Manual Process and Machine Process (Fat and SNF Calculator)

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Approx 50-100 lit of water is being consumed and handpump/boring is the source of this water. ■ They have 2 Cans (40L each) for Milk Storage. ■ They need Facility such has solar. ■ For Power Backup, DCS using Inverter (Capacity 1000VA/600W).
41	Retailers	12.12.2022 Dehradun	FGD with the retailers	<p><i>Meeting with the retailers</i></p> <ul style="list-style-type: none"> ■ We had Discussion with 3-4 retailers. ■ As per Discussion they are selling Milk products of Different. ■ Aanchal Brand is sold approx. 10-12 litre per day. ■ Other Brand are also sold approx. 15-16 litre per day. ■ Anchal brand Milk is Transported from Milk union by retailers from DCS milk collection vehicle. ■ Some Retailer if milk packet milk gets spoil it's not exchanged. ■ Retailers also sell other dairy products such as paneer, Dahi, Chach etc ■ Inverter is placed for power backup. ■ Retailer have concerns on rate.

Table B4: Minutes of Stakeholders Consultations of Jharkhand

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
	Development, Department of Agriculture, Animal Husbandry & Co-operative	05 December 2022 Farmers Training Centre Campus	Directorate of Dairy Development, Department of Agriculture, Animal Husbandry & Co-operative, Jharkhand	<ul style="list-style-type: none"> ■ In each financial year the block level offices invite application from the villagers to take benefit from the various schemes implemented by the department and Government of India. The received applications were scrutinized based on the different criteria (e.g., indigenous people, financial background, unemployment, widow, etc.) and selected list were forwarded to district offices for processing. District Dairy Development offices again scrutinize and forward the application to Directorate of Dairy Development, Department of Agriculture, Animal Husbandry & Co-operative, Jharkhand from where all applications were sent to DAHD, New Delhi. ■ In each financial year DAHD, New Delhi sanction a budget based on the scheme allotment (recurring) and fresh requisition from the Directorate of Dairy Development, Department of Agriculture, Animal Husbandry & Co-operative, Jharkhand. Further the fund allocated to respective Districts and finally to the beneficiaries. ■ Separate funds were reserved for the Training activities running in two training institutes located at Ranchi and Dumka. Full time residential training program of one month was provided to the trainees with theory and practical classes. The training programs run according to the training calendar developed for each financial year with a target. ■ Apart from providing subsidies for the development of the dairy livestock the department also provide Artificial Insemination (AI) facility to the farmers. As per the data shared in financial year 2021-22 total 8.4 lack cattle were artificially inseminated by the department covering 11% share from all India AI coverage. <p>Information regarding different schemes</p> <ul style="list-style-type: none"> ■ Mukhyamantri Pasudhan Vikas Yojana – The Chief Minister Livestock Development Scheme (CMLDS) is an umbrella scheme under which different schemes are proposed for different sections. ■ Two Cow Scheme - women belonging to families that are affected by disasters, fire, or road accidents, or those who are abandonment or disabled shall be given two cows and buffaloes at a subsidy of 90 percent. Except for the widows, childless couple and disabled all other beneficiaries are to get 75 percent grant from the scheme. ■ Kamdhenu Dairy Farming Scheme (KDFS) – Under the sub-schemes of KDFS the subsidy of 75 percent is being provided to the beneficiaries coming from the Scheduled Caste and Scheduled Tribes for procuring 5 milch animals namely cows and buffaloes under Mini Dairy scheme, and 10

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>milch animals under the Midi Dairy Scheme. At the same time, the subsidy given to the beneficiaries coming from other categories except that of Scheduled Caste and Scheduled Tribes is set to 50 percent of the project cost.</p> <ul style="list-style-type: none"> ■ Subsidy of 90 percent for manual chaff cutters for beneficiaries belonging to Scheduled Caste, Scheduled Tribes as well as the Milk Producers Society. ■ To encourage progressive farming practices in the state 90 percent subsidy is to be given to beneficiaries coming from the Scheduled Caste and Scheduled Tribes and Milk Producers Society to help them procure Milking Machines, Paneer- Khoya Machines, Cow mats and boring machines, whereas a subsidy of 75 percent is to be provided to beneficiaries from other categories. <p>Challenges Lack of manpower – The department is currently running 68 officers and some casual staffs (need based). Around 10-12 officers will retire in this financial year. Thus, a scarcity of manpower is evident to run the DAHD activities in 24 districts and in the headquarter.</p>
	State Federation	FTC Campus	Jharkhand Cooperative Milk Federation Ltd	<p>Jharkhand Cooperative Milk Federation Ltd. (JMF) came into existence in 2013. In March 2014, JMF joined hands with National Dairy Development Board (NDDB) to extend the developmental spirit of the dairy development programme in the state of Jharkhand. Jharkhand State Milk Federation (JMF) implemented various dairy development programme in the State for a period of five (2013-2018) years. Over this time span, there has been a drastic improvement in the production of milk as well as the number of employed dairy farmers. The milk production has reached up to 1,80,000 liters per day as of 2022. The number of farmers associated with JMF has increased from around 2,000 in the year 2013 to 30,000 in the year 2022.</p> <p>In April 2014, NDDB took over the management of JMF which included milk procurement, processing, and marketing activities and launched the brand “Medha”. NDDB assigned Mother Dairy – which is renowned for its high-quality milk and milk products in the country – to assist the brand in its market operations. This helped Medha to become renowned amongst the public and have a strong foothold in the market. Subsequently, NDDB took over the existing Government Dairy at Ormanjhi in August 2014 and two other dairies at Deoghar and Koderma in September 2014. It not only helped the brand to get established but also enable it to capture a reasonable share of the Jharkhand Milk market. Currently, Medha is producing 1 lac liters of milk every day by three milk production plants in the state, located in Deoghar, Koderma and Ormanjhi.</p>

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>Current process followed in Jharkhand</p> <p>In Jharkhand JMF is directly procuring Milk from milk producing farmers. At village level they have Milk Pooling Points (run through agents on commission basis). The agents were provided with Milk testing machine, Milk collection cans and transport (auto) for their functioning. The collected milk then sent to Bulk Milk Coolers (established based on milk collection potential, generally one in a block). Further the milk sent to Milk processing plants (in Hotwar and Ormanjhi plant for Ranchi and nearby districts). The payments of milk procurement were done directly by JMF in their bank accounts of respective farmer.</p>
	Krishi Vigyan Kendra	6 December 2022 Divyayan Krishi Vigyan Kendra, Ramakrishna Mission Ashrama	Krishi Vigyan Kendra	<p>Divyayan KVK has been striving to achieve the four zero goals viz.</p> <ul style="list-style-type: none"> ■ Zero conventional energy use - by installing solar panels to generate 10KW power, Solar Water Heater, Solar Street Lighting System and gobar gas plant. ■ Zero water loss - goal being achieved through establishment of water harvesting structures in Divyayan KVK farm. ■ Zero chemical uses - use of chemicals in KVK farm has been replaced by organic fertilizers and pesticides. ■ Zero plastic zone - Goal being achieved through banning the use of plastic in KVK farm. <p>Divyayan KVK has been continuing its regular activities for enhancement of agricultural productivity & profitability and for upliftment of farming community with special emphasis on organic farming like</p> <ul style="list-style-type: none"> ■ Long duration residential skill development training for rural youth, ■ Conducting on farm trials (OFT) and ■ Front line demonstration (FLD) for assessing, refining, and disseminating technologies, organizing field days, ■ Farmers scientist interaction, ■ Kisan melas, ■ Animal health camp, ■ Workshops and other extension programs <p>Challenges:</p> <ul style="list-style-type: none"> ■ Low turnaround or rural youth after training – KVK organize the long-term trainings for the rural youth to provide them the technical knowledge with practical training. But after completion of the training very low (approx. 10-20%) trainees adapt the learned lessons in their farming practice or start their own production. Most of the trainees search job in large dairy farms or agriculture farm to get a job based on the knowledge they have acquired from the training in the KVK.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Limited support from the State Departments to support the schemes – KVK conducts on farm trials (OFT) and front-line demonstration (FLD) in selected village to demonstrate that the developed methodologies or the species (from the lab research) can survive in the local environment. Also, they demonstrate the precautions or solutions of any problem arising in the local environment due to various factors. E.g. they provide a cattle breed in a village to demonstrate how the breed can adapt with local climate and give better milk production if scientific feeding practice, vaccination, disease control and artificial insemination etc. were done in the scheduled time or when needed. ■ Due to less manpower the reach of State Animal Husbandry department is very less in the interior areas of Jharkhand resulting in unavailability of Veterinary doctors, vaccination, and AI facilities etc.
	Veterinary/Animal husbandry college	06 December 2022 Birsa Agriculture University, Ranchi, Jharkhand	Faculty of Veterinary Science & Animal Husbandry	<p>Cattle breed Improvement</p> <p>The awareness regarding the cattle breed improvement is very less among the farmers in semi-urban and remote villages. In urban areas some progressive farmers are aware about the program and implement it in their dairy business to have cattle/ buffalos with increased milk production capacity.</p> <ol style="list-style-type: none"> I. BAIF (Bharatiya Agro Industries Foundation) –BAIF has evolved innovative models of micro-enterprises to ensure inclusive development through dairy husbandry and sustainable agricultural production for food security and poverty alleviation. In Jharkhand they run their operation a BAIF Institute for Sustainable Livelihoods and Development (BISLD) – Jharkhand. They were running Dairy Cattle Development Centre in 24 districts of Jharkhand with The Govt. of Jharkhand issued Office Order No. 63 dated 10.11.2010, which ended in the year 2015. Then the field workers advised to work on the SEY (Self Employed Youth) Mode providing AI services from the centers. Currently Government of Jharkhand has formed a new agency named Jharkhand State Implementing Agency for Cattle and Buffalo Development (JSIA) II. Jharkhand State Implementing Agency for Cattle and Buffalo Development (JSIA) – The agency came into existence in 2014 with the focus of transforming huge population (>95%) of nondescript (ND) poor productive cattle and buffalo into good productive and profitable animals of high genetic worth by following A.I (Artificial Insemination) with the frozen semen of males of well-known high productive breeds. They are running around 3000 AI centres (Panchayat level) divided in three zones covering the entire Jharkhand. Following are the role and responsibilities of the organization <ol style="list-style-type: none"> a) Implementation of animal breeding schemes.

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				<ul style="list-style-type: none"> b) To provide suggestions and assistance to the State Government in the development of departmental infrastructure and institutions for breed improvement and animal development. c) Implementing new technologies for sustainable animal development. d) Implementation and execution of Centrally Sponsored Schemes. <p>Based on the climatic condition of Jharkhand following breeds were recommended for the farmers to keep for better milk production.</p> <ul style="list-style-type: none"> a) In urban areas – Jersey. Great milk production potential. Needs balanced diet, disease monitoring, and AI service which is easily available at urban centers. b) In Semi-urban areas – Gir or Sahiwal. Good milk production potential. Less vulnerable to diseases. Can produce milk on natural available diet in addition to green fodder. AI or natural mating recommended for this breed. c) In rural areas – Tharparkar. Milk production potential is moderate. Can survive on naturally available diet. The male cattle produced has good physical build for the agriculture work. <p>Training Programs running in the institution</p> <p>Multipurpose AI Technicians in Rural India (MAITRIs)</p> <p>Currently one veterinary doctor is deputed in a block covering more than 20 villages and more than 200 cattle. It is not possible to monitor the breeding health of such large number of cattle by one veterinary doctor daily. Due to the lack of staff the target of cattle breed development program could not be achieved.</p> <p>To cater this problem Multipurpose AI Technicians in Rural India (MAITRIs) training program was introduced by DAHD in 2021 under the Rashtriya Gokul Mission (RGM). In this program selected farmers will be trained to perform artificial insemination, semen selection, breed selection, common diseases, dairy improvement practice etc. Under this program farmers were trained for one month in the training center (veterinary colleges) and then associated with block level veterinary clinic (Government department – Directorate of Dairy Development) to provided practical experience. The aim of this project is to train a greater number of AI technicians at village and panchayat level to cater the current and future needs.</p> <p>Regular training on Dairy Technology</p> <p>A training program is designed covering all theory and practical aspects related to Dairy Business. This 10-day long training program is available in both sponsored and non-sponsored mode. Trainees sent by government departments, co-operatives etc. were exempted from any payment while the non-sponsored candidate are charged Rs. 1000 for this training.</p>

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				<p>Services Provided by the Institution The veterinary clinic is being run by the institution free of cost for the farmers and at nominal charges for the public. Anyone can visit with their cattle for the treatment in this clinic. Apart from the clinic there are demonstrational</p> <p>Solid waste and bio-medical waste management The bio-medical waste generated from the animal hospital and the college are incinerated. The biodegradable solid waste generated were composted while the non-biodegradable solid waste were provided to the municipal waste collection vehicle</p>
	Milk Processing Plant	07 December 2022 Milk Processing Plant, Jharkhand Milk Federation	Milk Processing Plant, Latehar, Jharkhand	<p>There was a chilling plant running in the building. In 2016 when JMF came into existence this was converted into processing plant to cater the need of Garhwa, Latehar and Palamu districts.</p> <ul style="list-style-type: none"> ■ Daily milk receiving in the plant from BMCs located in Garhwa, Latehar and Palamu districts – 32,000 Liter/Day (approximately) ■ Processed Milk Production – 8,000 – 10,000 Liter/ Day (based on market demand) ■ Excess milk was transferred to JMF Ranchi plant through insulated milk tankers. ■ The plant has three Milk Tankers – 1x6KL, 2x8KL. ■ Milk received from the BMC was tested for quality and adulteration, then stored in RMST. ■ A small laboratory was available in the plant with necessary infrastructure for testing and quality check of milk and milk products. ■ Day to day operation of the plant require 20 workers (3 Permanent staff + 14 Casual labors+ 3 Security staffs). For office work 4 dedicated manpower are recruited. This office works as cluster office for Garhwa, Latehar and Palamu districts. ■ HR operation managed by head office (Ranchi) <p>Electricity and Water requirements</p> <ul style="list-style-type: none"> ■ Plant electricity load requirement – 60Kw ■ Electricity connection from Grid – 75 Kw ■ Back up DG Set – 63 KVA ■ Water requirement in processing and cleaning – 16,000 liter/Day (approximately) ■ Water source – 4 borewells in the plant campus (no water meter installed, depth and diameter not provided) <p>Waste Management</p>

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				<ul style="list-style-type: none"> ■ Waste generated – Plastic milk packets, paper bags, etc. ■ Annual contract with waste recycler for plastic waste management. ■ Wastewater generated from – Cleaning, milk spillage, washing and processing. ■ No ETP and WTP available in plant. Wastewater thrown in the adjacent stream (nala) without any treatment.
	Dairy Development Officer	07 December 2022 District Dairy Development office, Latehar	Dairy Development Officer	<ul style="list-style-type: none"> ■ In each financial year the block level offices invite application from the villagers to take benefit from the various schemes implemented by the Animal Husbandry department, Government of Jharkhand. The received applications were scrutinized based on the different criteria (e.g., indigenous people, financial background, unemployment, widow, etc.) and selected list were forwarded to district office for processing. District Dairy Development office again scrutinize and forward the application to Directorate of Dairy Development, Department of Agriculture, Animal Husbandry & Co-operative, Jharkhand for the approval. ■ In each financial year Directorate of Dairy Development, Animal Husbandry department, Government of Jharkhand sanction a budget based on the scheme allotment (recurring) and fresh requisition. The funds are then allocated to respective Districts and through the district administration to the beneficiaries. ■ Separate funds were reserved for the Training activities running in two training institutes located at Ranchi and Dumka. Full time residential training program of one month was provided to the trainees with theory and practical classes. The training programs run according to the training calendar developed for each financial year with a target. ■ Apart from providing subsidies for the development of the dairy livestock the department also provide Artificial Insemination (AI) facility to the farmers. As per the data shared in financial year 2021-22 total 8.4 lack cattle were artificially inseminated by the department covering 11% share from all India AI coverage. <p>Information regarding different schemes</p> <p>Various beneficiary-oriented subsidy programs e.g., 2 Milch Cattle Induction on 90% subsidy to BPL women beneficiaries, Assistance to Progressive Dairy Farmers, Heifer Rearing Program, Kamdhenu Dairy Farming (5/10/20/50 milch cattle & 4 milch cattle to Tana Bhagat Families) are implemented on varying subsidies. Apart from this, distribution of cattle feed on subsidized rate and training as well as skill development program of rural dairy farmers, unemployed youths & Progressive dairy farmers are implanted on 100% subsidy.</p>


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Training, extension & skill development – Implemented on 100% subsidy to train rural dairy farmers, unemployed youths, progressive dairy farmers & entrepreneurs. ■ 2 Milch Cattle Induction on 90% subsidy to BPL women beneficiaries – For BPL Women beneficiary (i) Recommendation of Gram Panchayat on selected beneficiary list obtained through EoI. (ii) Final selection by District Level committee programme chaired by DC. ■ Assistance to Progressive Dairy Farmers – For Progressive Farmers 25 to 50% subsidy provided on different components. (i) Recommendation of Gram Panchayat on selected beneficiary list obtained through EoI. (ii) Final selection by District Level committee programme chaired by DC. ■ Heifer Rearing Programme – A subsidy of 50% provided to the rural dairy farmer engaged in dairy farming & heifer rearing on the milk route of JMF & around District Cattle Development Centre (DCDC) / Artificial Insemination (AI) Centres ■ Kamdhenu Dairy Farming (5/10/20/50 milch cattle) – Implemented on 15 to 50% subsidy to rural dairy farmers, unemployed youths, progressive dairy farmers & entrepreneurs for dairy farming. (i) Recommendation of Gram Panchayat on selected beneficiary list obtained through EoI. (ii) Final selection by District Level committee programme chaired by DC. ■ 4 milch cattle to Tana Bhagat Families (Under Kamdhenu Dairy Farming) – A subsidy of 100% amount provided to enlisted Tana Bhagat Families, recommended by concerned Deputy Commissioner of the district. ■ Distribution of cattle feed on subsidized rate – Cattle feed will be provided on 25% of market price or lumpsum fixed amount per Kg. to rural dairy farmer engaged in dairy farming & heifer rearing on the milk route of JMF & in District Cattle Development Centre (DCDC) / Artificial Insemination (AI) Centres <p>Challenges</p> <ul style="list-style-type: none"> (i) Lack of manpower – The department is currently running 11 officers and some casual staffs (need based). One veterinary doctor is in-charge of 2 or more blocks for the project implementation, monitoring and disease control. Also, lack of technical staff and supporting staff add more hardship in proper functioning of the departmental machinery. Requisition for staff recruitment was forwarded to the concerned department of Government of Jharkhand and the files are still in processing stage. (ii) Lack of vehicle and driver – Due to lack of manpower one doctor is functioning as coordinating person for multiple blocks and district resulting in increased travelling. The

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				department have limited number of vehicle and drivers to provide them conveyance services resulting in delay in co-ordination and monitoring.
	Veterinary doctor	07 December 2022 Latehar, Jharkhand	JFM Veterinary Doctor	<ul style="list-style-type: none"> ■ There in only one veterinary doctor provided for this cluster including Garhwa, Latehar and Palamu districts. Their details are shared with all BMC and MPP operators. They organize camps in different villages based on the request from respective BMC and MPP operators. No scheduled training/ camp calendar available. ■ The diseases and problems commonly seen in the animals of this area are Bovine mastitis, Theileriosis, bovine babesiosis, milk fever, viral infections like FMD, HS, BQ ets, seasonal digestion problem and infertility problems. The JMF veterinary doctors only provide advise and diagnosis. Based on that farmers purchase medicines from market and give to their cattle. <p>Information regarding different schemes</p> <ul style="list-style-type: none"> ■ Sanjeevani (A private financial company) under the CSR activity, has signed a MoU with JMF for providing cattle disease control support in selected areas of Jharkhand. Under this program Cattle Health Camp and De-worming camps were organized by their veterinarians providing one stop solution to farmers. <p>Challenges</p> <ul style="list-style-type: none"> ■ Reaching to interior villages – Being a single doctor in three districts, it is a challenge to reaching out the dairy farmers living in interior villages. ■ Unavailability of trained and active AI workers – There is a scarcity of trained AI workers in the cluster districts, resulting in no remarkable progress in breed improvement in the cluster districts. The remuneration to the AI workers is very less, thus they are not active and only attend those farmers who pay theme extra money for the AI. ■ Unavailability of veterinary doctors from AH department – Duo to less manpower (Veterinary doctors and Dairy technicians) in animal husbandry department, the government veterinary hospitals are not very much active. When the farmers actually need doctors, they could not reach them or contact them resulting in delayed diagnosis of any disease or AI. ■ For Balance ration feeding – JMF is producing in house Cattle Feed and Mineral mixture. They have a BIS certified cattle feed plant at Hotwar, Ranchi inside the Milk Processing Plant campus. The products made available to the dairy farmers on subsidy price through BMCs and MPPs. However, the subsidized price is also too high for poor farmers resulting in very less product demand. As a pilot, it was proposed that a farmer can give consent to JMF for deduction of 20-


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				30% amount of milk payment, which will be used to provide cattle feed and mineral mixture to the farmer when required.
	Krishi Vigyan Kendra	08 December 2022 Krishi Vigyan Kendra Seed Multiplication Farm, Balumath	Krishi Vigyan Kendra, Latehar (Balumath)	<p>The Krishi Vigyan Kendra, Balumath, Latehar was sanctioned in March 2007, and it came under the jurisdiction of Birsa Agricultural University Kanke, Ranchi-6. It is situated at Balumath block away from 34 Km of district headquarter on Ranchi Chatra Road (NH 99).</p> <p>Specific Intervention Area Training and awareness program is being run from the center. On farm trials and field level demonstrations were organized by the KVK, scientists to provide the knowledge of latest developed technologies.</p> <p>Trainings provided by the KVK Latehar Very less training programs related to dairy business was organized by the KVK, Latehar. Also, a dedicated scientist of Animal Husbandry was not posted at the center. Time to time KVK, Latehar organize awareness programs on dairy and related subjects with the help of external expert of this field.</p> <p>Dairy Farming and its management – The training program is designed to promote dairy farming and better managerial practices to achieve better milk production. In this training different breeds of cows, housing, feeding and health management and vaccination schedule has been taught. Commercial dairy farming could be a self-sustainable business option for the rural unemployed youth.</p> <p>Problems Shortage of manpower.</p>
	Veterinary hospital	08 December 2022 Block Animal Husbandry Office, Balumath	Block Animal Husbandry Officer (BAHO) Veterinary Doctor	<ul style="list-style-type: none"> ■ There is only one veterinary doctor provided for the three blocks – Balumath, Barwadih and Herhanj. The details are shared to public DDO, Latehar. Anyone can contact the doctors on their phone. Villagers from respective MPPs request to organize camp in their village. ■ The diseases and problems commonly seen in the animals of this area are Bovine mastitis, Theileriosis, bovine babesiosis, milk fever, viral infections like FMD, HS, BQ etc, seasonal digestion problem and infertility problems <p>Challenges</p> <ul style="list-style-type: none"> ■ Reaching to interior villages – Being a single doctor in three blocks, it is a challenge to reach out each and every dairy farmer living in interior villages. ■ Unavailability of trained and active AI workers – There is a scarcity of trained AI workers in the cluster districts, resulting in no remarkable progress in breed improvement in the cluster districts.

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				<p>The remuneration to the AI workers is very less, thus they are not active and only attend those farmers who pay them extra money for the AI.</p> <ul style="list-style-type: none"> ■ Unavailability of veterinary doctors from AH department – Due to less manpower (Veterinary doctors and Dairy technicians) in animal husbandry department, the government veterinary hospitals are not very much active. When the farmers need doctors, they could not reach them or contact them resulting in delayed diagnosis of any disease or AI.
	BMC	09 December 2022 Balumath, Latehar	BMC Operator and staff	<ul style="list-style-type: none"> ■ Bulk Milk Cooler (BMC) is functional from last 5 years. The centre was set up by JMF. ■ The centre is functioning in a government building (on rent basis) located inside the Block office campus. The Public Distribution System (PDS) godown, Animal Husbandry office and block office are also located inside the campus. ■ The electricity requirement of the BMC is fulfilled by DG set (15 KVA). It was placed in the semi ventilated space in the BMC building. During the DG set operation smoke and smell was observed inside the building. ■ The water tank and water supply were preinstalled in the building. The water supplied here comes from the pipeline water supply service providing water supply in other government offices. Daily water consumption in BMC operation and cleaning was approximately 1000 litre per day. The wastewater is being spread in the waste land beside the BMC. No wastewater management observed. ■ The milk tanker visits the BMC in morning between 9-10 AM and collect the milk stored in previous day morning and evening shifts. ■ Milk collected in 10 MPPs in and around the Balumath were supplied here daily in both morning and evening shifts. The daily collection was approximately 1700-1800 Litre per day. The BMC capacity is 2000 Litre. ■ The BMC was functioning by the help of one BMC operator paid Rs 12K monthly salary from JMF.
	Milk Pooling Point	09 December 2022 Balumath, Latehar	MPP Operator and farmers	<ul style="list-style-type: none"> ■ Milk Pooling Point (MPP), Balumath is functional from last 5 years. ■ Dairy farmers from Chetuag, Barni, Hathdih, Bachra, Ratandag, Barikhap and other nearby villages visit this point to provide their milk to JMF. ■ Approximately 420 dairy farmers registered in this MPP. However, only 70-75 farmers are providing milk regularly.

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				<ul style="list-style-type: none"> ■ To join JMF as a dairy farmer (i) membership form, (ii) aadhar card, (iii) bank account details and (iv) one nominee person aadhar details are required. The Member code was generated within 3 days of documents submission. ■ Women are preferred to join as member. Currently 50% codes were registered in female names only and the payment is going in their accounts only. ■ The payment of submitted milk is provided to the respective farmers in their Bank Accounts only. No cash transactions. ■ The daily milk collection from the MPP is approximately 350-400 litre per day (cumulative of morning and evening collection). The milk collection time is 7-11 in the morning and 5-7 in the evening. ■ The DPMCU (Data Processor Milk Collection Unit) machine test the milk quality (fat, SNF) and records it with the weight of total milk against the code of respective farmer providing milk. This data automatically transmitted to the server through internet and accessible to respective BMC and JMF employees for further processing. As soon as the data reaches the JMF server the farmer receives acknowledgement SMS in his/ her registered mobile number with the details (quantity, fat, SNF, payment value etc.) of milk provided. ■ The electricity requirement of the MPP is fulfilled by the solar charging batteries. ■ The Milk billing was done in 3 cycles in a month and accordingly the payment released in the respective bank account <p>Issues from Dairy Farmers</p> <ul style="list-style-type: none"> ■ The rate of milk should be increased. Based on the fat and SNF level in the milk average Rs 25-35 per liter was provided which is less than the market rate of Rs 50 per liter. ■ If the rate could be increased up to Rs 40 per liter, the milk collection will increase up to 1000-1200 liter per day. ■ Currently due to winter season milk collection is less. ■ Milk cans should be provided by the JMF for bringing the milk to the centers. Earlier the 5 Liter milk cans were distributed in 2017. Most of the farmers bring milk in their own metal cans few observed using the plastic jars of 2-5 Liter. ■ Veterinary medicines for disease control were not provided by JMF. District animal husbandry office is located nearby. Farmers coming to the MPP used to visit the veterinary doctor in case of any need. But the same doctor is in-charge of another 2 blocks, thus the availability was not sure at the clinic.

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				<ul style="list-style-type: none"> ■ For artificial insemination (AI) no aid or support provided by JMF nor by Animal Husbandry department. ■ For AI, vaccination and disease control villagers are relying on local untrained workers (known as Jhola Chaap doctors). ■ Women are also involved in the dairy business. Almost all the daily take care was done b women only. Men ensure the availability of feed for the cattle and supply of milk to the market or MPP. It could be summarized as 60-70% work is done by women only. ■ Involvement of indigenous people observed very less in the dairy business. <p>Consultation picture:</p> 
	MPP	09 December 2022 Village – Humbu, Balumath,	MPP operator and farmers	<ul style="list-style-type: none"> ■ Milk Pooling Pont (MPP), Humbu is functional from last 3 years. Earlier the villagers were going to Balumath for providing the milk to JMF or selling it in the Market. ■ Dairy farmers from Humbu, Tetebar, Lawagarha, Chiru, Balu, Bijra, Nawada, Hur and other nearby villages visit this point to provide their milk to JMF. ■ Approximately 200 dairy farmers registered in this MPP. However, only 50-55 farmers are providing milk regularly.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>Issues from Dairy Farmers</p> <p>In addition to the issues highlighted by farmers of Balumath MPP (above) the following are additional issues faced by Hambu MPP:</p> <ul style="list-style-type: none"> ■ The DPMCU machine in the MPP is out of service from last 12-15 days, currently manual billing is done. This results in delayed data processing resulting in delayed payment. ■ In case of faulty DPMCU the milk was tested at BMC in their absence, and they are getting paid almost 10 rupees less per liter of milk. ■ Veterinary medicines for disease control were not provided by JMF nor by Animal Husbandry department. Last time they got medicines in 2019. ■ For artificial insemination (AI) no aid or support provided by JMF nor by Animal Husbandry department. ■ For AI, vaccination and disease control villagers are relying on local untrained workers (known as Jhola Chaap doctors). ■ Some farmers tried the cattle feed manufactured by JMF. But the response was not good. Farmers told that the “Kisan Pashu Aahar” available in the market is more productive than the “Medh Pashu Aahar”. ■ Women are also involved in the dairy business. Almost all the daily take care was done by women only. Men ensure the availability of feed for the cattle and supply of milk to the market or MPP. It could be summarized as 60-70% work is done by women only. ■ Involvement of indigenous people observed very less in the dairy business. ■ MPP operator was not satisfied with the JMF approach towards them. JMF was not providing any remuneration to them against the services provided. However, MPP operator gets 0.25% commission on the total milk collected at the MPP. The stationary supply in the MPP is not sufficient. <p>Consultation pictures:</p>

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	BMC	10 December 2022 Banhardi, Latehar	BMC operator and staff	<ul style="list-style-type: none"> ■ Bulk Milk Cooler (BMC) is functional from last 4 years. The centre was set up by JMF. The BMC capacity is 2000 Litre. ■ The centre is functioning in a government building (on rent basis) located in the Banhardi village of Chandwa block, Latehar. ■ The electricity requirement of the BMC is fulfilled by DG set (15 KVA). It was placed in the semi ventilated space in the BMC building. During the DG set operation smoke and smell was observed inside the building. ■ The water tank and water supply were preinstalled in the building. The water supplied here comes from the solar powered mini pipeline water supply service. Daily water consumption in BMC operation and cleaning was approximately 1000 litre per day. The wastewater is being spread in the waste land beside the BMC. No wastewater management observed. ■ The milk tanker visits the BMC in morning between 8-9 AM and collect the milk stored in previous day morning and evening shifts. ■ Daily Milk collection is approximately 1300-1600 Litre from 17 MPPs

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				<ul style="list-style-type: none"> ■ The BMC was functioning by the help of one BMC operator paid Rs 12K monthly salary from JMF. As reported by BMC operator the salary was not regular, it was always paid after 2-3 months. ■ It was evident from the discussion with the BMC operator that due to the less density, villages are located at quite good distance from one another. Also, the road conditions are not good. These two factors affect the milk collection most.
	MPP	11 Decmeber 2022 Village – Garhwa	MPP operator and farmers	<ul style="list-style-type: none"> ■ Milk Pooling Pont (MPP), Burhikhand is functional from last 3 years. ■ Dairy farmers from Kharsota, Gosang, Karkata, Bhabani and other nearby villages visit this point to provide their milk to JMF. ■ Approximately 60 dairy farmers registered in this MPP. However, only 25-30 farmers are providing milk regularly. ■ Women are preferred to join as member. Currently 50% codes were registered in female names only and the payment is going in their accounts only. ■ The payment of submitted milk is provided to the respective farmers in their Bank Accounts only. No cash transactions. ■ The daily milk collection from the MPP is approximately 100 litre per day (cumulative of morning and evening collection). The milk collection time is 6-7 in the morning and 6-7 in the evening. ■ The collected milk was sent to BMC, Manjhiaon located at approximately 6 Km distance. <p>Issues from Dairy Farmers</p> <ul style="list-style-type: none"> ■ The rate of milk should be increased. Based on the fat and SNF level in the milk average Rs 22-35 per liter was provided which is less than the market rate of Rs 50 per liter. ■ Lack of veterinary medicines for disease control and artificial insemination ■ For AI, vaccination and disease control villagers are relying on local untrained workers (known as Jhola Chaap doctors). They charge Rs 300-500 per AI. ■ Some farmers tried the cattle feed manufactured by JMF. But the response was not good. Farmers told that the “Kisan Pashu Aahar” available in the market is more productive the “Medh Pashu Aahar”. ■ Involvement of indigenous people observed very less in the dairy business. ■ MPP operator was not satisfied with the JMF approach towards them. JMF was not providing any remuneration to them against the services provided. However, MPP operator get 0.25%


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				commission on the total milk collected at the MPP. The stationary supply in the MPP is not sufficient.
	Zonal Research Centre, Palamu	12 December 2022 Zonal Research Centre (Birsra Agriculture University) Near KVK Palmu, Chiyanki, Palamu	Scientist at Zonal research center	<ul style="list-style-type: none"> ■ Fodder development program is being run in the center to help the farmers involved in the dairy business. ■ Trial plantation has been done in the farm for research and demonstration. The details regarding the green fodder development project will be shared later (via WhatsApp or email) as discussed by the scientist. <p>Challenges:</p> <ul style="list-style-type: none"> ■ Primary hurdle in the fodder production is the lack of irrigation facility and awareness among the farmers. Progressive farmers with large number of animals have knowledge about the nutrition need of the cattle and feed their animal with nutrition rich cattle feed. However, the awareness is very less in traditional farmers. ■ Ensuring the availability of fodder round the year - The green fodder (normal grass) is available to them in the rainy season only. In rest of the year due to lack of irrigation facility they are unable to grow the fodder for their cattle.
	District Dairy Development office, Palamu	08 December 2022 District Dairy Development office, Palamu	Dairy Development Officer, Palamu,	<p>Challenges</p> <ul style="list-style-type: none"> (i) Lack of manpower – The department is currently running 11 officers and some casual staffs (need based). One veterinary doctor is in-charge of 2 or more blocks for the project implementation, monitoring and disease control. Also, lack of technical staff and supporting staff add more hardship in proper functioning of the departmental machinery. Requisition for staff recruitment was forwarded to the concerned department of Government of Jharkhand and the files are still in processing stage. (ii) Lack of vehicle and driver – Due to lack of manpower one doctor is functioning as coordinating person for multiple blocks and district resulting in increased travelling. The department have limited number of vehicle and drivers to provide them conveyance services resulting in delay in co-ordination and monitoring. (iii) Lack of AI technicians at Panchayat level to cater the need of every village on timely manner
	MPP	13 December 2022 Village – Marwaniya,	MPP operator and farmers	<ul style="list-style-type: none"> ■ Milk Pooling Point (MPP) is functional from last 5 years. The centre was set up by JMF. ■ The centre is functioning in a private building (on rent basis) located inside the campus of Shiv Shakti Dairy Farm. ■ Dairy farmers from Korga, Kabisa, Majhgawan, Silidag, Bhagodih, Karanpura, Rohilla, Manur and other nearby villages visit this point to provide their milk to JMF.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
		Ramna, Garhwa, Jharkhand.		<ul style="list-style-type: none"> ■ Currently 435 codes were registered with this MPP. However, only 100 dairy farmers supply milk regularly. ■ The electricity requirement of the MPP is fulfilled by the solar charging batteries. ■ The daily milk collection from the MPP is approximately 600-700 litre per day (cumulative of morning and evening collection). The milk collection time is 6-9 in the morning and 5-7 in the evening. <p>Issues from Dairy Farmers</p> <ul style="list-style-type: none"> ■ A new BMC should be opened in Bhawanathpur area to reduce the transportation cost. ■ Milk rates should be increased. ■ Death of cattle is a major problem in this area. Due to lack of medical support and proper diagnosis many dairy farmers lost their cattle and faced serious loss. ■ Government should start cattle insurance in very low premium so that poor farmers can also avail this facility and will get compensation in case of cattle death. ■ Milk cans should be provided by the JMF for bringing the milk to the centers. ■ Number of veterinary doctors should be increased in JMF. In every district there should be two veterinary doctors assisted by two technical officers to cater the need of each district. ■ Cattle feed should be provided in more subsidized rate. The current rate is only Rs 3-4 less than the products available in the market. Subsidized cattle feed shall be made available at 50-60% of the current market price. ■ Some farmers need support on establishment of Biogas Plant. Those dairy farmers having more than 10 cattle will generate a substantial amount of cow dung every month.

Table B5: Minutes of Stakeholders Consultations of Madhya Pradesh

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
1	Animal Husbandry	15.12.2022 MP Pashudhan ebong Kukkut Vikash, Bhopal	FGD with Deputy Director of State Animal Husbandry	<ul style="list-style-type: none"> ■ This overall organization is headed by the Principle Secretary and Director of Pashupalan, Managing Director of MP Pashudhan ebong Kukkut Vikash Nigam, Managing Director of MP Gopalan ebong Pashudhan Sangbardhan Board and Managing Director of MP Co-operative Dairy Federation reports to the Principle Secretary. And under the Milk Federation will be reporting to MP Co-operative Dairy Federation and all the Milk Union comes under Milk Federation. ■ And during the consultation we also discuss about the reporting hierarchy of training schedule under animal husbandry department. It was understood that, animal husbandry training not directly involved with the field level body such as DCS. ■ Livestock Department will set target for training institute and inform Director of Animal Husbandry and same will be forwarded to Training Institute. Training institute will inform District level body such as Milk Union regarding the training schedule and criteria and District Union will send trainee as per criteria set by livestock department. ■ There is a special assistance training for SC which is conducted by retired doctor. Under this scheme, training on dairy, poultry etc. will be provided for three days and stipend of Rs.2500 will also be provided with free fooding and lodging facilities. ■ This department will also conduct training for Maitri, Refresher course for doctor and foundation course for newly appointed doctor. ■ There are several centrally sponsored scheme has been introduced such as National Live Stock Mission-2021, Risk Management and Livestock Insurance. And also scheme like National Livestock Mission Rural Backyard Poultry Development Scheme which is 60% sponsored by Central Govt. and 40% by State Govt. ■ And also under Bundelkhand Special Package, 6 districts namely Sagar, Damoh, Tikamgarh, Chattarpur, Panna, Datia have been included. Works like dairy development program have been taken up to benefit and provide employment to the cattle herders of

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>Bundelkhand region. In the Additional Central Assistance (ACA) component, the department has received 80.70 crores, which has been utilized 100 percent.</p> <ul style="list-style-type: none"> ■ Animal Husbandry Department does not provide any support in terms of loan or credit support for dairy farmers. ■ As per Dr. Meenakshi, 16 to 18% methane is being generated from dairy industry and cross breed generate more methane. ■ Heat stress has a major impact on the milk production capacity of cattle and which has direct impact on the state milk production capacity. ■ Parental Antibiotics is being used to treat the mastitis of cattle. <p>Allotted fund is the major issue currently this department is facing. As reported, fund is not sufficient for beneficiaries schemes. And due to low budget Scheme analysis not feasible.</p>
2	Mukta Maila Milk Company	15.12.2022 MP CHILPAHADI VILLAGE SAGAR MP	Focus Group Discussion with- <i>Muktaa Mahila Milk Producer Company Limited</i> and Biogas Plant owner	<p>Meeting with Mukta Dairy Plant</p> <ul style="list-style-type: none"> ■ Following Amul footsteps, they call themselves FPO (Farmer Producer Organisation) with single tier system. ■ They started in the year 2017 and operational on 3rd of August, 2018. ■ They are covering two districts, i.e. sagar and chatarpur having footprints in 550 villages. ■ They claim that they are able to collect 70000 liters of milk per day. ■ As reported they are paying avg.50 rupees per liter and the money directly send to farmers account ■ For becoming Mukta members , villagers needs to pay Rs. 150 and also capable of producing milk for at-least for 200 days in a year. ■ They are collecting milk from MPP at village level and it goes to BMC/CC and sold to Mother Dairy.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ This firm working on AI and claim to complete 40000 AI in four years with the help of NDDB. ■ Promoting women empowerment, the plant is having 18500 workers who are women. ■ During the discussion it is noted that the major issue for both the district is water scarcity and heat stress in the cattle. ■ The CE emphasised for scientific enhancement such as green feed seed. <p><u>Biogas Plant</u></p> <ul style="list-style-type: none"> ■ There is a biogas plant owned by Prailash Sigh at Chil Pahari village. He has constructed this pant in 1993. During the discussion, it is noted that 40 to 45 kgs of cattle dunk is being used for 4x3x1 m³ capacity of biogas. ■ The liquid waste from biogas plant is being used manure in the field. ■ The generated gas is directly send to their gas stove via pipeline. ■ Reportedly, this family is saving around 2000 per month from this biogas plant.  <p>Field visit to the plant site</p>
3	DCS	07.12.2022 Different villages under BDP		<p><i>Consultation with BMC-based DCS:</i> Barkheda Baramad:</p> <ul style="list-style-type: none"> ■ Registration No- DRB 1200, dated 20/10/2014, and the BMC came into existence in 2018.


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ The DCS consists of 25 members, out of which 10 are women members and 6 SC/ST families. ■ The capacity of BMC is 1000 litres ■ Out of 1500 lit/day milk generation in the village, only 650 lit/day milk is being collected in this BMC-based DCS from 70 households (HH). ■ The electricity bill is paid by DCS as per commercial land law and the monthly electricity bill comes to around rs.1200. ■ In this particular village, payment is made by the milk union directly to DCS, and end producers get their payment from DCS. ■ No provision for solar and biogas plants. ■ 200 lit of water is being consumed and the bore well is the source of this water. But no permission was obtained for the borewell. ■ Backup 15kV DG is present at BMC and around Rs.4000 is spent on diesel. <p>Major discussion</p> <ul style="list-style-type: none"> ■ Here also price is the main concern for villagers. The union provide 7.50 rupees per kg of fat where as the private sector provides 8.50 g of fat. ■ It was noted that another concern is the high price of cattle feed. ■ As reported by the villagers, DCS has flexible timing, so villagers can come around 9 am or 10 am and can give their milk to DCS whereas private sector has a time bound. For giving milk to the private sector, the time schedule is morning 7 am to 8 am. ■ Some of the profit-earning ways of DCS are as follows: <ul style="list-style-type: none"> - The profit comes from weight volume variation. - Kg-fat commission from the union.


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> - 5 litter of additional milk is collected from a sample bottle each day. ■ An adulteration kit is available to check the quality issue to DCS. ■ ERP system is available at this DCS through which all the taste data is being sent to Bhopal Dairy Plant. <p>Consultation with BMC-based DCS: Two BMC-based DCS, i.e. Barkheda Salam village and Phanda Kala village.</p> <p>Barkheda Salam Village:</p> <ul style="list-style-type: none"> ■ Registration No- Barkheda Salam (ARB 960, dated 30/11/2009) and the BMC came into existence in 2012. ■ The DCS management committee constitute of 9 members who select the secretary of the respective DCS. ■ 39 members are in this DCS out of which 18 members are female and 4 members belong to SC/ST community. ■ The capacity of BMC is 1000 litres ■ Out of 1500 lit/day milk generation in the village, only 350 lit/day milk is being collected in this BMC-based DCS. ■ The DCS takes initiative to take membership but as per discussion, the major concern is the lesser rate provided to the end users as compared to their private market competitor. ■ The rate for BMC is rs. 35/lit for cows and buffalo is around 45-55/lit and the rate list is attached here. ■ The electricity bill is paid by DCS as per commercial land law and the monthly electricity bill comes to around rs.2500.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ In this particular village, payment is made by the milk union directly to DCS, and end producers get their payment from DCS. ■ No provision for solar and biogas plants. ■ 150 lit of water is being consumed and a tube well is the source of this water. ■ Backup 10kV DG is present at BMC. <p>Phanda Kala Village</p> <ul style="list-style-type: none"> ■ Registration No - Phanda Kala Village (ARB 887, dated 25/08/2005) and the BMC came into existence in 2010. ■ In this DCS, two societies are there, one is with BMC and one without BMC. ■ Total of 55 members, out of which 12 to 13 females and 3 to 4 SC/ST members. ■ Backup 10kV DG is present at BMC. ■ 150 lit of water is being consumed and a tube well is the source of this water. ■ A total of 1200 liters of milk are being collected in this DCS from 120 households. ■ The DCS takes initiative to take membership but as per discussion, the major concern is the lesser rate provided to the end users as compared to their private market competitor. ■ The rate for BMC is Rs. 35/lit for cow and buffalo is around 45-55/lit and the rate list is attached here. ■ No provision for solar and biogas plants at present. DCS is willing to adopt alternative technologies such as biogas plants and solar power usage. <p>Consultation with BMC-based DCS: Panwadi Village:</p>



S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Registration No: 129, Secretary – Lakhan Singh (9302845525) ■ 65 members are in this DCS out of which only one member is female and two members belong to SC/ST community. ■ The capacity of BMC is 2000 litters, only 350-400 litters/day milk is being collected in this BMC-based DCS. ■ The major concern is the lesser rate provided to the end users as compared to their private market competitor. ■ The electricity bill is paid by DCS as per commercial land law and the monthly electricity bill comes to around rs.4000. ■ Farmers getting their payments through DCS. ■ No provision for solar and biogas plants. ■ No data is available for water consumption but source of water is nearby borewell and the water level is at 400 feet. During summer water is major concern for the villagers. ■ Backup 10kV DG is present at BMC and monthly diesel cost comes around Rs.2000. <p>Bachania Village</p> <ul style="list-style-type: none"> ■ Registration No - 1237, dated 01/04/2017 and no BMC is available in this Society, Secretary- Sharif Khan ■ Around 100litters/day, milk is collected from 60-70 households. ■ All the 36 members of the DCS is women. ■ They do not have any backup DG test but they have UPS to run the fat analyser instrument. ■ A collection vehicle will collect all the milk from this particular DCS and transported to Panwadi BMC which is cost around Rs.2000/month.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ No provision for solar and biogas plants at present. DCS is willing to adopt alternative technologies such as biogas plants and solar power usage. ■ The electricity bill comes around Rs.13.65/unit. ■ During the discussion, it is understood that their major problem is that this DCS does not have its own office. Currently they are paying a rent of Rs.1500 per month. ■ According to the secretary of the DCS, the head load being given to them is not sufficient. Currently they are getting head load around Rs.1900/month. ■ Another major point came up during the discussion is that the milk testers do not get any payment from union or DCS. <p>BMC with DCS, Chil Pahari</p> <ul style="list-style-type: none"> ■ Registration No- 1389, 2011, and the BMC came into existence in July 2021. ■ The DCS consists of 70 members and for becoming a member, villagers need to pay Rs.110 to the union. ■ There are two BMCs with a capacity of 2000 litres and 5000 litre ■ This BMC collects 8000 litres of milk per day. ■ The electricity bill comes to around Rs. 29000 per month. ■ This BMC covers 35 DCS including 61 villages. ■ No provision for solar and biogas plants. ■ 4 numbers of cars are being used for the transportation of milk to BMC with a head load of Rs. 1.2/liter and this head load is decided by the milk union. ■ 1000 lit of water is being consumed and the bore well is the source of this water. There is severe water scarcity during the summer.



S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> Backup 10kV DG is present at BMC and around Rs.3000 is spent on diesel. <p>Major Concern</p> <ul style="list-style-type: none"> This DCS require another 2000 litter capacity BMC. This DCS require a fat analyser machine. Currently, they are using a traditional fat analyser machine, called "Chakra".  <p>Discussion with BMC based DCS</p>
4	Cattle Feed Plant	13.12.2022 Cattle Feed Plant, Sagar	Consultation in Cattle Feed Plant	<p><i>Meeting with the Cattle Feed Plant</i></p> <ul style="list-style-type: none"> This plant started in 2016 under Bundelkhand Dairy Vikas Pariyojna and it is operated by Bundelkhand Milk Union and spread over 20 acres of land. This automated plant capacity is 100 metric tons/ day, and the running is 50 metric tons/day. They collected raw materials such as DORB, Rice Kan, Rice Poli, Grain, Rap Seed, and Makka from the National Cooperative Dairy Federation of India Limited through tendering process. The transportation cost comes to around 6lakh to 7lakh.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ The cattle feed plant supplies the finished product (cattle feed in form of palates) to the BMC from where it is sent to all DCS by milk-collecting vehicles. ■ The ex-factory rate is Rs.20/kg ■ They have a coal-fired boiler with a capacity of 500kg/hour which consume 300-400kg of coal per day. ■ They collected coal from Government agencies such as CIL through outsourcing. ■ Plastic waste has sold through auctions and yearly approx. 15 tons of plastic waste has been generated. ■ The plant unit is BIS certified and it does not require MSME. <p><u>Major Concern</u></p> <ul style="list-style-type: none"> ■ The issue with hiring permanent staff. Out of 40 staff, only two staff are permanent, and the remaining are contractual. ■ Impurities like jute and iron were observed in raw materials. These impurities are segregated through a jute separator and magnate. <div data-bbox="934 966 1329 1263" style="text-align: center;">  </div> <p>Cattle Feed Factory</p>

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
5	Chilling Plant	11.12.2022 Chilling Centre, Agar Malwa	FGD with the chilling plant, Agar Malwa	<p><i>Meeting with the plant</i></p> <ul style="list-style-type: none"> ■ Total area of the plant is 4.59 acre and started in 1990. ■ Capacity of the plant is 30,000 litter and running capacity is around 11,000 to 11500 litter. ■ The capacity of the plant is 2.5 lakh per day with the running capacity of 1.5 lakh per day. ■ Chilling plant of private dairy such as Sridhi, Agar Fresh are also situated around the area. ■ The chilling plant is getting milk from 11 routes and third-party truck/vehicle is being used to bring the milk to chilling centre. ■ This chilling plant is collecting milk from 130 DCS. ■ This plant is falling under buffalo belt, so they are collecting only buffalo milk. ■ DG set of 65kV is used as backup power supply. Rs. 8.5 to 9/hour of diesel its required. ■ Total 24 workers are working at chilling plant out of which 2nos are permanent staff. ■ They have own substation from they are getting electricity and electricity bill comes around 70,000 each month. ■ With the spoiled milk, they are preparing dahi and butter and also send those milk to Ujjain for further processing. ■ Wastage water they are using for gardening. <p><u>Critical Issue</u></p> <ul style="list-style-type: none"> ■ Regular staff issue. No recruitment to fill the vacant post. ■ Repair of old infrastructure and OHSR. ■ Solar panel not working.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				 <p data-bbox="1276 678 1461 708">Visit to the plant</p> 
6	Dairy Farmers	Phanda Kala Village 06.12.2022 09.12.2022 13.12.2022	Consultation with farmers having milch animals and involved in the dairy business	<p data-bbox="829 1008 1104 1037"><i>Meeting with the farmers</i></p> <p data-bbox="829 1057 1591 1086">Discussion with a small farmer (3 cows + 1 buffalo), Abhishek Rajput</p> <ul data-bbox="829 1105 1906 1344" style="list-style-type: none"> <li data-bbox="829 1105 1583 1135">■ As reported, milk production from his cattle is 14.5 liters per day <li data-bbox="829 1154 1570 1183">■ The payment is made to him directly by DCS in ten days cycle. <li data-bbox="829 1203 1839 1265">■ It was noted that after spending Rs.6000 on cattle feed/ fodder and other expenses per month, monthly earnings are around Rs.3000. <li data-bbox="829 1284 1906 1344">■ The cattle grazing land is no more available in the village due to civilization in and around the village.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ In the family men and women are equally involved in dairy sector work. <p>Discussion with a big farmer (3 buffalo + 9 cows), Bane Singh</p> <ul style="list-style-type: none"> ■ As reported, milk production from his cattle is 55 litter per day ■ The payment is made to him directly by DCS in ten days cycle. ■ As he said, the profit margin is around 30%. ■ Only he is involved in the dairy business in his family. ■ As per the discussion, it was estimated that 2000 acres of grazing land per 1000 cattle are required. ■ It was estimated, 2500 kg of cow dung is generated per 1000 litter of milk. <p><u>Major Concerns</u></p> <ul style="list-style-type: none"> ■ A lesser rate of raw milk to the producer ■ Lesser overall BMC running cost (should increase from 0.50rs/liter to 1rs/litre ■ As per the discussion, the rates of raw milk reduce in the nov-feb period as compared to the month of May-June. They want this price to be fixed for the complete year cycle. ■ They want their complete feed/fodder demand of cattle to be fulfilled by the DCS/MU itself. ■ There should be free medical facilities and vaccination programs for their cattle. ■ DCS is willing to adopt alternative technologies such as biogas plants and solar power usage. ■ Some DCS are running on a pilot basis without registration. The village called Dhamara is an example of a non-registered DCS where all the union rules apply to this DCS.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ There is a recent scheme started by Milk Union called SBI MOU Mudra Loan under which 2lakh to 10 lakh has been given to farmers to buy cattle from other states. But the issue is only the existing members (minimum 2 years membership) of DCS will be benefited. ■ DCS without BMC has to take the collected milk to the nearby BMC centre for which they are being paid around 50% of the total transportation expenses per day. And the terminology is “Head Load” which they want to be increased. <div style="text-align: center;">  <p>FGD with the farmers</p>  </div>

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
7	Indigenous People	08.12.2022 Barkheda Baramad	FGD with the indigenous people	<p><i>Meeting with the indigenous people</i></p> <ul style="list-style-type: none"> ■ Around 5 to 6 families in the village come under ST category. ■ Only two families of the ST group are associated with the dairy industry. ■ These two families have only two buffalo (one each). ■ They do not have their own land, so they have to buy fodder from outside which cost around Rs. 12 to 15 kg each. ■ Another source of income is a daily labour ■ They do not have their own land, so they will not get any loan under the KCC scheme. <p>Major Concern</p> <ul style="list-style-type: none"> ■ During the consultation, it was understood that they are not allowed to decide with respect to any dairy development activities. <p>The payment from DCS is collected by men only and men only decide how to utilise that money. Women do not know how much they are getting from DCS.</p>
8	Milk Federation	14.12.2022 MP State Cooperative Dairy Federation, Bhopal	FGD with the state cooperative dairy federation of Bhopal	<p><i>Meeting with the Milk federation</i></p> <ul style="list-style-type: none"> ■ In the year 1980, under the Madhya Pradesh Cooperative Societies Act 1960, Madhya Pradesh Dugdh Mahasangh Sahakari Maryadit (presently MP State Cooperative Dairy Federation Ltd.) was formed to conduct activities of integrated dairy development in the cooperative sector in the state. ■ With this, the formation of three-tier cooperatives started on the Anand system. ■ Under this, about 7000 rural milk cooperative societies at the first level, 6 cooperative milk unions at the second level with their headquarters in Bhopal, Indore, Ujjain, Gwalior, Jabalpur and Sagar and MP State Cooperative Dairy Federation (MPCDF) are working at the state level.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ The major working of MPCDF is: ■ Coordination with State and Central Governments and their agencies. ■ Preparing and monitoring the plan for the implementation of the cooperative dairy program in the state ■ Implementation of state and central government schemes ■ Providing necessary technical advice and guidance to milk unions ■ Providing milk powder and white butter as per requirement from various state federations/milk unions to milk unions. Similarly, arrangements for the sale of surplus milk powder and white butter available with milk unions ■ Administrative control over milk unions ■ As discussed, it was noted that the recruitment process is soon going to be started by the MPCDF through the state service selection board. ■ For the Grievance Redressal Mechanism, there is a working Helpline number available with the facilitation on WhatsApp number as well. <p>It was noted that for Marketing, the concept of a Smart parlour selling the Sanchi Brand has been worked out. Miss Megha Parmar has been appointed as the Brand Ambassador of Sanchi Brand who is also the first women mountaineer from Madhya Pradesh to climb Mount Everest.</p>
9	Milk Union	06.12.2022 Bhopal Milk Union	FGD with milk union	<p>Meeting with Milk Union</p> <ul style="list-style-type: none"> ■ “Sanchi” is the Brand name (company name) of Bhopal Milk Plant. ■ The capacity of the plant is 4 lakhs (area 13 acres) out of which 3.10 lakh milk is produced in 5 to 6 variants such as diamond, gold, standard, chach, double toned, toned, and tea special. ■ The other milk products are dahi, lassi, chach, mawa, milk cake, panner, ghee. ■ It was noted that there is no chilling plant in the Bhopal district. ■ The present plant started around 1980 ■ This Bhopal Dairy Plant covers 12 districts.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ As reported, this plant collects milk from DCS/BMC. ■ In some areas, the payment is done directly to the end producer by the mil union and in other places its been done through DCS. ■ Advanced GPS is to be reported there in tanker and an ERP management system is also in place. ■ Some of the tankers are owned by the milk union and others by a third party (capacity of tanker 1000 l, 5000l, 10000 l, 12000 l. ■ The collection is done two times in the morning and evening in big cities and for rural markets, the collection is done once a day, i.e. in the evening. ■ The plant is registered under Quality Management System (QMS: 9001:2015), Food Safety Management System (FSMS 22000:2005), and Environmental Management System (ESMS:14001:2015). ■ The plant is registered under Labour law ■ Twelves schemes are run by the milk union and the photo is attached. There are central government schemes such as KCC (Kishan Credit Card) and Dairy Plus (a loan for buying two buffalos). <p><u>Environmental Details</u></p> <ul style="list-style-type: none"> ■ There is no dedicated EHS person available at the plant, it is being handled by an engineering team ■ The source of water is groundwater with 600 KLD consumption and extraction permission obtained from CGWB. ■ The plant is having ETP capacity of 602 KLD with a running capacity of 405 KLD. The treated is being used for gardening and land landscaping and also approx. 2lkh per day treated water is being sent to a nearby railway station for wagon washing and an MOU with

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<p>the rail has been made for the same. And the ETP sludge handling is done via a sludge drying bed and after two to three months they are used for manure.</p> <ul style="list-style-type: none"> ■ ETP plant is based on UASB (Up-flow Anaerobic Sludge Blanket Reactor) technology which is recommended by NDDB. As per the ETP water monitoring report, the BOD of raw water was about 900mg/l and the treated water BOD was 16mg/l. ■ Approx. 4 lakh units of electricity supplied by MP Electricity Board. ■ Consolidated consent & authorization has been obtained under the MP Pollution control board which is valid up to 31/07/2026 and hazardous waste authorization up to 31/07/2027 and registration under Plastic Waste Management Rules,2016 up to 28/02/2027 (Consent No. AWHP 55186). ■ Hazardous waste such as used oil is stored in a separate area with a generation capacity of 10 to 12 drums every two years and it is handed over to authorized vendors. ■ The plastic waste generation is 50-60 tons per month for which the plant is hired a PRO for its plastic waste collection and disposal. <p><u>Clean Energy Initiative</u></p> <ul style="list-style-type: none"> ■ The plant is planning to switch to a Biofuel boiler from an oil-based boiler, hence contributing to GHG emission reduction. <p>The plant is planning to introduce rainwater harvesting and rooftop solar panel during its expansion phase</p>
10	Milk Union	09.12.2022 Ujjain Milk Union, Shajapur	FGD with Ujjain Milk Union, Shajapur	<p>Meeting with Milk Union</p> <ul style="list-style-type: none"> ■ This plant started around 1976. ■ The capacity of the plant is 2.5 lakh per day with a running capacity of 1.5 lakh per day. ■ The other milk products are dahi, lassi, chach, mawa, milk cake, panner, ghee. ■ This Dairy Plant covers 06 districts.


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ As reported, this plant collects milk from DCS/BMC. ■ The payment is done through DCS. As per the CEO, DCS is a selected body and implementing agency and so we cannot bypass DCS for any payment or other related activities. ■ Advanced GPS is to be reported there in 22 numbers tankers and an ERP management system is also in place. ■ The plant is registered under Quality Management System (QMS: 9001:2015), Food Safety Management System (FSMS 22000:2005), and Environmental Management System (ESMS:14001:2015). ■ The plant is registered under Labour law ■ They are promoting a smart parlour for marketing the Sanchi product. ■ There is a 30% reduction in milk production due to lumpy disease. <p><u>Environmental Details</u></p> <ul style="list-style-type: none"> ■ There are two 2-ton coal-fired boilers in place for the steam generation which is used in the plant processes and a 1-ton oil-fired boiler is going to install. ■ There is no dedicated EHS person available at the plant, it is being handled by an engineering team ■ The source of water is a borewell with 1.5 lakh per day consumption and extraction permission was not obtained. ■ The plant is having ETP capacity of 1 lakh per day. The treated water is being used for gardening and landscaping. And the ETP sludge handling is done via a sludge drying bed and after drying it is dumped through the municipality. ■ ETP plant is based on a pressure filter but it was not working properly. ■ They do not have any data available for hazardous waste generation.



S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Approx. Rs. 12 lakh electricity bill supplied by MP Electricity Board. ■ As reported, they have consent for Air and Water but no documents have been provided. ■ The plastic waste generation is 7 to 8 tons per month for which the plant is hired a PRO for its plastic waste collection and disposal. <p><u>Clean Energy Initiative</u></p> <ul style="list-style-type: none"> ■ The plant is a solar heater which has the capacity of heating 10,000 litres of water and this water is being used for CIP (Cleaning in Place). <p><u>Suggestions</u></p> <ul style="list-style-type: none"> ■ Infrastructure improvement. ■ As per CEO, the biogas plant will only be feasible when some incentive or subsidy will be provided to villagers or a village-based Gobar Gas Plant could be implemented. <p>The same norms as the organised sector should be implemented in the unorganised sector.</p>
11	Milk Union	12.12.2022 Bundelkhand Milk Union, Sagar	FGD with the milk union of Bundelkhand milk union, Sagar	<p><i>Meeting with Milk Union:</i></p> <ul style="list-style-type: none"> ■ The capacity of the plant is 1 lakhs (area 32 acres) and the running capacity is 80,000 litter/day which is coming from 6 districts, i.e. Sagar, Damoh, Panna, Chattarpur, Tikamgor, Newadi. ■ The plant is constructed under Bundelkhand Dairy Vikas Pariyojna. ■ The land is in a lease by Animal Husbandry Department for 99 years. ■ The present plant started around 1980 and the new plant started two years back. ■ As reported, this plant collects milk from 800 DCS/BMC. ■ In some areas, the payment is done directly to the end producer by the milk union and in other places its been done through DCS.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Advanced GPS is to be reported there in tanker and an ERP management system is also in place. ■ All the tankers (5,000 litters- 3no, 9,000 litters- 3nos, 15,000 litters- 2no) are owned by the milk union and if needed then they can hire third-party tankers. ■ The collection is done two times in the morning and evening. ■ The plant is registered under Quality Management System (QMS: 9001:2015), Food Safety Management System (FSMS 22000:2005), and Environmental Management System (ESMS:14001:2015). ■ The plant is registered under Labour law ■ The plant is manufacturing 40,000 litres of milk and 5,000 litres of other milk products and the remaining 35,000 to 40,000 litres of milk is being sent to Patna (Sudha Dairy) and Bhopal Dairy as bulk milk. ■ The ETP is maintained by a third party. ■ The plant is having Glass Policy to prevent any glass usage in the processing of products right from receipt of raw material till the delivery <p><u>Environmental Details</u></p> <ul style="list-style-type: none"> ■ There are two coal boilers in place for steam generation which is used in the plant processes. The height of the stack is 31.5 meters and two bag filters have been attached to the stack. And around 1500kg/day of coal is being used as fuel. ■ There is no dedicated EHS person available at the plant, it is being handled by an engineering team ■ The source of water is groundwater with around 70,000 litter consumption and extraction permission not obtained from CGWB.


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				<ul style="list-style-type: none"> ■ The plant is having ETP capacity of 1.5 LPD with a running capacity of 80,000 LPD. The treated is being used for gardening and land landscaping and also approx. And the ETP sludge was handed over to a third-party vendor. ■ ETP plant is based on Activated Carbon Filtration Technology. ■ The treated and raw water are monitored monthly. ■ The plant is having DG with a capacity of 750kV. ■ Approx. Rs. 8 lakh per month of electricity consumed which is supplied by MP Electricity Board. ■ As reported they have CTE and CTO but no documents have been provided. ■ The plant hired a PRO for its plastic waste collection and disposal. ■ Reject water from softener and RO, is directly discharged into the public drain ■ Used oil from DG set and Ammonia Compressor is being sold to MPPCB license holders for reprocessing. ■ Type of waste generated from the plant – papers from office, strip pp bags, metal scrape during maintenance and repairing operation. <p><u>Clean Energy Initiative</u></p> <ul style="list-style-type: none"> ■ The plant is having solar heater which is used for heating 5000 litter of water <p><u>Major Concern</u></p> <ul style="list-style-type: none"> ■ The issue with hiring permanent staff. The majority of the staff is contractual. And also a specialised person for each unit is not available. ■ Fat analyser is not available at 50% of the BMC/DCS.
12	NGO	08.12.2022	Consultation with an NGO	<i>Meeting with an NGO</i>

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
		Bhopal		<p>We had a meeting with Sandip Chourasia, the owner of the FarCow Welfare Society NGO. This NGO working on improving the breeds of cows to enhance milk production which in turn will increase the farmer's income. And they are working on the skill development of women and making them self-dependent for their livelihood.</p> <p>FarCow NGO came into existence in the year 2019 and got legal status on 14th January 2020 under the Society Registration Act, of 1973.</p> <p>The NGO working on improving the breed by introducing Artificial Insemination (AI) and for semen they have tied up with ABS India which is the supplier of semen. And they also got the dealership for Madhya Pradesh from Ruhuri Semen Station (a unit of NDDB Dairy Service based in New Delhi). And they are working on modern agricultural techniques for providing the best quality feed (Pashu Ahar) to increase the productivity of farmers. They are promoting organic agriculture practices and teaching farmers about them.</p> <p>As reported by him, the fat analyser available at DCS is not correct and it shows less fat percentage than private dairy industries. And he also said that the mass vaccination program by Government is not succeeded due to a cold chain issue where Govt. does not have a proper place to store the vaccine.</p> <p>We also discussed resource consumption in the dairy sector. As per him, around 200 litres of water per day is required for each cattle. Water is the main issue with the dairy industry. Exploited area such as Shajapur, faces water scarcity during the month of summer. He also informed us that, cattle can produce as maximum as 30kgs of a dunk per day and this can be used as manure in the agricultural field.</p> <p>We also discuss the environmental and social concerns related to the dairy industry. People can understand about the breeding or AI technology and with each passing day, the younger generation is getting interested in it and wants to join it. And through this, the younger generation will connect with the dairy industries. He also said that climate change has a major impact on the heat cycle of a cattle in the fields. Due to temperature rise, the heat cycle of animals has changed and due to this stress is increasing in cattle which indirectly impacts their milk production.</p> <p>He discusses the limitation of AI or semen. As per him, there is shortage of liquid nitrogen at the market which is required to store Semen.</p>


S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				
13	Training Institute	09.12.2022 Ujjain milk union	FGD with a training institute at Ujjain milk union	<p>Meeting with Training Institute:</p> <ul style="list-style-type: none"> ■ The training centre is a unit of Ujjain Milk Union and register under the Artificial Insemination Training Institute. This institute started around 1980. ■ There are two training centres in MP- one in Ujjain and another one in Bhopal. ■ The student's capacity is 30. ■ There are three staff- one is regular staff and the remaining two are contractual. ■ This training is conducted by a retired doctor. ■ This training comes under Maitri Yojna. ■ Maitri is given 3 months of training and 2 months of practical training at the field level. ■ Training is given to Gau-Sevak or 10th-pass youth above 18 years of age. ■ During the training the food arrangement along with the hostel fee is free. ■ During the training, students will get a stipend of rs. 1000 per month.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> After the successful completion of training, the certificate will be provided after passing the examination. After this, the AI kit is given free of cost to the trained Maitri, so that they can go to the field and start artificial insemination work and other work. <ul style="list-style-type: none"> Yearly 160 different training has been provided which include DCS management, tester training etc. Till the reporting period, 126 training has been completed. <p>Major Concerns</p> <ul style="list-style-type: none"> An issue with the field training staff. No field-level trainer is available. Maintenance of building and training facilities. Laboratory arrangement for training at the training institute. <div style="display: flex; justify-content: space-around;">   </div> <p>FGD with the training institute</p>
14	Veterinary Hospital	07.12.2022 Veterinary Hospital	Consultation with Veterinary Hospitals/ Veterinary Doctor	<p>Meeting with the veterinary hospital</p> <p>Doctor Name: Shivani Paul (Field Officer) Helper: Mangilal</p> <ul style="list-style-type: none"> This is the small hospital-based out at Runaha which covers 22 villages. All services from medicine to vaccination are done both by window services and home services.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ They do mass drive vaccination twice a year (Jan-Feb, July) for mouth disease and feet disease. ■ 50 litter is estimated to be consumed for each buffalo which comes from the borewell. ■ The wastewater directly disposes of on-site only. ■ Biomedical waste is collected by municipality truck once a month (the waste collection truck is exclusively for the collection of veterinary waste). ■ Electricity bills come to around Rs. 2000 to 2500.
15	Veterinary Hospital	10.12.2022 Veterinary Hospital	Consultation with Veterinary Hospitals and doctors	<p><i>Meeting with the veterinary hospital</i></p> <p>Currently there are 3 doctors and 2 field officers.</p> <p><u>Mass Drive Vaccination:</u> Semi-Annual Mass drive vaccination program for mouth and foot disease. And other vaccination such as BQ, and Entrotoxinima has provided at a subsidised rate.</p> <ul style="list-style-type: none"> ■ The most common decease is Mastitis, Mouth disease and Foot diseases. As per the doctor, mastitis caused due to physical trauma or micro-organism infections. A cow has no value when it can not give milk and then people leave them on street and this causes physical trauma to them. ■ They have an agreement with Hostech and they collect biomedical waste daily from the hospital. ■ They do not have any data regarding water consumption. As reported, tubewell and nagar pally is the main source of water. ■ Electricity bill comes to around Rs.7000 to 8000 per month. ■ This hospital is giving service to 32 villages.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> As per the doctor, villagers are not willing to provide vaccination as they think it will reduce the milking production of cattle. <p>Recommendations</p> <ul style="list-style-type: none"> As suggested by the doctor, there needs to be one hospital for ten villages, currently only one hospital for thirty-two villages. Recruitment of new doctors. <p>Specialized doctor for small animals and large animals.</p>
16	Women in dairy business	07.12.2022 Laloi Bhopal	Consultation with women associated with dairy business	<p>Meeting with women stakeholders</p> <ul style="list-style-type: none"> They give 4 hours daily for dairy work. They are the members of DCS committee. They have voting right within society. They have their own land and fodder arrangement has been done from their land. As per the discussion, lots of things have changed in the dairy sector, as young people do not want to come dairy business due to low income. 
17	Women in	Bachania	FGD with members of SHG	<p>Meeting with Self Help Group</p> <ul style="list-style-type: none"> There are 10 members in this SHG and it was made around 8 to 9 years back.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ During the discussion it was noted that, 1 lakh of loan has been received which is being equally distributed among 10 members and the amount credited into SHG account. ■ They have received the money under Pradhan Mantri Jeevan Jyoti Bima Yojana. ■ They utilize this money to buy cattle feed, agricultural utilities etc. and some of the member use this money to construct cattle shade. ■ The women have the right to vote and right to speak in the DCS and they participate in all discussion in DCS. ■ SHG has a monthly discussion meeting regarding how to utilize that money and how to collect the interest. ■ As per the SHG members, if they get a little more amount of loan, they could buy buffalo. The loan amount given is very low and does not provide much benefit to them. <p>They also informed us that mouth/foot disease is a major concern for cattle and the government does not provide proper vaccination.</p>
18	Women SHG	Chil Pahadi	Consultation with womrn led SHG	<p>Meeting with women stakeholders</p> <ul style="list-style-type: none"> ■ Secretary of SHG: Habila Rawat ■ This group is consisting of 12 members. ■ During the discussion, it was noted that a 1 lakh of loan has been received from Central Bank which is being equally distributed among 10 members and the amount is credited into the SHG account. ■ They have received the money under Pradhan Mantri Jeevan Jyoti Bima Yojana. ■ They utilize this money to buy cattle feed, agricultural utilities etc. and some of the member use this money to construct cattle shade.

S. No	Stakeholder group	Consultation Date & Venue	Participants detail	Key points of discussion
				<ul style="list-style-type: none"> ■ Women have the right to vote and the right to speak in the DCS and also, ■ they participate in all discussions in DCS. ■ SHG has a monthly discussion meeting regarding how to utilise that money and how to collect the interest. <div data-bbox="926 548 1199 740" style="text-align: center;">  </div> <p data-bbox="827 751 1087 776">FGD with Women SGH</p>

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ERM India Private Limited

Building No:10, Tower B
3rd Floor, DLF Cyber City
Gurgaon, NCR- 122002

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