DAM REHABILITATION AND IMPROVEMENT PROJECT PHASE II

(Funded by World Bank)

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

FINAL

August 2020

CENTRAL WATER COMMISSION

GOVERNMENT OF INDIA

Table of Contents

Executive Summary 6

1. INTRODUCTION 14
   - 1.1 Background 14
   - 1.2 Project Description 14
   - 1.3 Lessons learnt from implementation of ESMF in DRIP I and DRIP AF 16
   - 1.4 Purpose of ESMF 16
   - 1.5 Methodology for development of ESMF 16
   - 1.6 Structure of the ESMF 17
2. POLICY, LEGAL AND REGULATORY FRAMEWORK 18
   - 2.1 Applicable National Policy, Rules and Regulations 18
   - 2.2 Applicability of WB ESS 18
   - 2.3 Comparison of National legislation and Bankô ESF 19
3. ASSESSMENT OF ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS 24
   - 3.1 Summary of E&S risks and impacts in the first 10 dams 24
   - 3.2 Overall Project E and S Risks and Impacts Identified by each ESS 25
   - 3.3 Institutional Assessment 30
4. ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK 32
   - 4.1 Application of ESMF 32
   - 4.2 Stage I: Environmental and Social Due Diligence Assessment 34
   - 4.3 Stage II: Preparation of ESMP 35
   - 4.4 Mitigation instruments to meet requirements of each ESS 36
   - 4.5 Addressing concerns of disadvantaged or vulnerable individuals or groups 38
5. STAKEHOLDER CONSULTATIONS AND DISCLOSURE 39
   - 5.1 National legal & Regulatory and WB ESS 10 requirements 39
   - 5.2 Consultations on ESMF 40
   - 5.3 Information Disclosure 42
6. IMPLEMENTATION ARRANGEMENTS 43
   - 6.1 Institutional arrangements 43
   - 6.2 Monitoring and evaluation 49
   - 6.3 Stakeholder Engagement Framework 50
   - 6.4 Grievance Redressal Mechanism 52
   - 6.5 ESMF implementation budget 54
   - 6.6 Linkage to the ESCP 54
   - 6.7 Contingency Emergency Response Component 55
   - 6.8 Updating of ESMF 55

ANNEXURES 56
ANNEXURE 1: APPLICABILITY ANALYSIS OF NATIONAL POLICY, LEGAL AND REGULATIONS; WB ESF STANDARDS 56
ANNEXURE 2: ESDD TEMPLATE 69
ANNEXURE 3: ENVIRONMENTAL AND SOCIAL SCREENING PROCESS 70
ANNEXURE 4: SUMMARY OF ESDD - E&S RISKS AND IMPACTS IN 10 DAMS 81
ANNEXURE 5: STANDARD ESMP FOR LOW TO MODERATE RISK SUB PROJECTS 85
ANNEXURE 6: TERMS OF REFERENCE TO UNDERTAKE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT FOR HIGH AND SUBSTANTIAL RISK PROJECTS 86
CONSULTANT STAFFING AND KEY QUALIFICATIONS 102
GUIDANCE FRAMEWORKS TO MEET REQUIREMENTS FOR RELEVANT ESS 104
ANNEXURE 7: GBV/SEAH RISK MITIGATION FRAMEWORK (ESS 1) 104
ANNEXURE 8: GUIDANCE FRAMEWORK FOR OCCUPATIONAL HEALTH & SAFETY MANAGEMENT FOR WORKERS AND COMMUNITY (ESS 2 & ESS 4) 125
ANNEXURE 9: GUIDANCE FRAMEWORK FOR POLLUTION PREVENTION AND ENVIRONMENTAL QUALITY MANAGEMENT PLAN (ESS 3) 132
ANNEXURE 10: RESETTLEMENT POLICY FRAMEWORK (ESS 5) 136
ANNEXURE 11:GUIDANCE FRAMEWORK FOR BIODIVERSITY CONSERVATION AND MANAGEMENT PLAN (ESS 6) 162
ANNEXURE 12: TRIBAL DEVELOPMENT FRAMEWORK (ESS 7) 165
ANNEXURE 13: GUIDANCE FRAMEWORK FOR CULTURAL HERITAGE PROTECTION PLAN (ESS 8) 174
ANNEXURE 14: INDICATIVE TABLE OF CONTENTS FOR VARIOUS ASSESSMENTS AND PLAN REPORTS 176
ANNEXURE 15: SUGGESTIVE TOR FOR THE POSITION OF SOCIAL DEVELOPMENT SPECIALIST IN CPMU/SPMU 183
ANNEXURE 16: SUGGESTIVE TOR FOR THE POSITION OF ENVIRONMENTAL SPECIALIST IN CPMU/ SPMU 186
ANNEXURE 17: SUGGESTIVE TOR FOR óNODAL OFFICERô AT CPMU AND AT SPMU/ IMPLEMENTING AGENCY 189
ANNEXURE 18: CONSULTATIONS ON ESMF 191
ANNEXURE 19: SUMMARY OF STAKEHOLDER CONSULTATIONS AT SUB PROJECT SITES 199
APPENDIX 1: STANDARD ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) .. 200

Acronyms

Anganwadi	Frontline worker of the Women and Child Development Department Rural Child Care Centre)
ARAP	Abbreviated Resettlement Action Plan
ASI	Archaeological Survey of India
BPL	Below Poverty Line
CBO	Community Based Organization
CDSO	Central Dam Safety Organization
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
C-ESMP	Contractorôs Environmental and Social Management Plan
CoC	Code of Conduct
CPMU	Central Project Management Unit
CSA	Contract Supervision Agency
CWC	Central Water Commission
DC	Divisional/District Commissioner
DRIP	Dam Rehabilitation and Improvement Project
DSO	Dam Safety Organization
DSRP	Dam Safety Review Panel
EAP	Emergency Action Plan
EHSG	Environmental, Health and Safety Guidelines
ESCP	Environmental and Social Commitment Plan
ESDD	Environmental and Social Due Diligence
ESF	Environmental and Social Framework
ESHS	Environmental, Social Health and Safety
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMU	Environmental and Social Management Unit
ESS	Environmental and Social Standards
EMC	Engineering and Management Consultant
FGD	Focus Group Discussion
FPIC	Free Prior and Informed Consent
GBV	Gender -Based Violence
GDI	Gender Development Index
GoI	Government of India
GPN	Good Practice Note by WB
GRC	Grievances Redressal Committee
GRM	Grievance Redress Mechanism
HDI	Human Development Index

HIV AIDS	Human Immunodeficiency Virus - Acquired Immunodeficiency Syndrome
IA	Implementing Agency
ICC	Internal Compliance Committee
IEC	Internal Educational Content
IPF	Investment Project Financing
IPV	Intimate Partner Violence
JRM	Joint Review Meeting
LMP	Labor Management Procedure
MPR	Monthly Progress Report
M&E	Monitoring and Evaluation
MoEF& CC	Ministry of Environment, Forest & Climate Change
MoJS	Ministry of Jal Shakti
NGO	Non-Government Organization
OHS	Occupational Health and Safety
Panchayat	Local elected body
PAP	Project Affected Person
PD	Project Director
PIU	Project Implementation Unit
PM	Project Manager
PMU	Project Management Unit
PPE	Personal Protective Equipment
PWDVA	Protection of Women from Domestic Violence Act
QPRs	Quarterly Progress Reports
RAP	Resettlement Action Plan
RFCTLARRA	Right to Fair Compensation and Transparency in Land Acquisition and Rehabilitation and Resettlement Act 2013
SC	Scheduled Caste
SDO	Social Development Officer
SEAH	Sexual Exploitation Abuse and Harassment
SEB	State Electricity Board
SEF	Stakeholder Engagement Framework
SEP	Stakeholder Engagement Plan
SPMU	State Project Management Unit
ST	Scheduled Tribe
TDF	Tribal Development Framework
TDP	Tribal Development Plan
TORs	Terms of Reference
WB	The World Bank
WRD	Water Resources Department

EXECUTIVE SUMMARY

Project Description

1. The proposed Dam Rehabilitation and Improvement Project (DRIP II) would complement the suite of ongoing and pipeline operations supporting Indiaõs dam safety program. The project development objective (PDO) is to increase the safety of selected dams in participating States and to strengthen dam safety management in India. Project Components include: Component 1: Rehabilitation and Improvement of Dams and Associated Appurtenances(US$577.14 million); Component 2: Dam Safety Institutional Strengthening(US$45.74 million); Component 3: Incidental Revenue Generation for sustainable operation and maintenance of dams(US$26.84million); Component 4: Project Management (US$68.13 million); Component 5: Contingent Emergency Response Component (US$0 million).The project is likely to be implemented across many states in the country. The primary beneficiaries of the project are the communities that live in dam breach flood inundation areas and the communities that depend on water, irrigation and electricity services provided by the dams that could be compromised by poor dam performance or failure there are no types of dam rehabilitation activities which are excluded a priori. Also, at present, there is no exclusion list for the CERC. In addition to saving lives, improved dam safety will avoid potential flood damage to houses, farm areas, infrastructure (roads, bridges, other public and private infrastructure) and industrial and commercial facilities. Improved dam safety will also reduce the likelihood of service interruptions due to dam failure as well as potentially improving dam service provision, overall efficiency and storage capacity, including during drought periods.

Purpose and Approach of ESMF

2. This ESMF is an update to the DRIP I and DRIP I AF ESMF, prepared as per previous safeguards policies. The methodology, herein, covers the lessons learnt from implementation challenges from earlier ESMF as well as the new requirements governed by the ESF and include the following:

    a. consideration of the implementation experience of ESMF in DRIP I and AF (ref. para 5, chapter 1)
    b. review of project components and sub-projects of DRIP II, including the new types of infrastructure proposed towards Additional revenue generation through a review of Project Screening Templates;
    c. findings from the ESDD including screening and stakeholder consultations that were undertaken for the first set of 10 dams in the two states of Rajasthan and Manipur;
    d. analysis of overall E&S risks and impacts;
    e. assessment of current institutional capacity to manage E&S risks and impacts;
    f. consideration of requirements of the new ESF, particularly: Labor Management Procedure (ESS 2), Stakeholder Engagement Plan (ESS 10), Community health and safety management (ESS4), and Pollution prevention and resources management measures (ESS 3) to meet the requirements of relevant ESS;
    g. existing national and state level legislations and guidelines ï their provisions and requirements vis-à-vis ESF, 2016 and to identify gaps therein and address them;
    h. interactions and consultations with CPMU and SPMUs on the draft ESMF for soliciting their views, suggestions and feedback and their subsequent incorporation towards finalizing the ESMF

3. This Environmental and Social Management Framework (ESMF) has been developed to serve as an instrument to guide the Implementing Agencies on undertaking necessary E&S due diligence

on each sub-project. Based on the ESDD findings accord a risk category (Low/Medium/Substantial/High) to each sub-project and undertake detailed ESIAs, if necessary, including the development of sub-project specific plans to meet the requirements of the relevant Bank Standards. ESMF provides overarching framework to manage environmental, social, health and safety (ESHS) issues associated with the implementation of sub-projects, during construction and operational phases.

4. This ESMF comprises of Framework instruments applicable at the project level, guidance frameworks and suggestive ToRs which shall be used as templates for preparation of sub-project specific instruments. The Project level Frameworks included in ESMF are ï ESDD framework including checklists; GBV/SEAH risk mitigation framework (ESS1); b. Resettlement Policy Framework (ESS5); c. Tribal Development Framework (ESS 7). The Project level guidance frameworks include ï Guidance Framework for ESMP, Guidance Framework for Occupational Health & Safety Management for Workers and Community (ESS 2 & ESS 4); Guidance Framework for Guidance Framework for Pollution Prevention and Environmental Quality Management Plan (ESS 3); Guidance Framework for Biodiversity Conservation and Management Plan (ESS 6); Guidance Framework for Cultural Heritage Protection Plan (ESS 8). The following guidance frameworks/outlines are included to enable taking up studies as well as prepare sub-project level mitigation plans and include - Outline of ESIA, Guiding Framework for Construction Debris and Solid Waste Management Plan; outline of RAP, Outline of Tribal Development Plan, outline of SEP, outline of LMP, outline of Biodiversity conservation plan.

5. In light of the COVID pandemic induced restrictions1 towards stakeholder consultations, consultations on draft ESMF were carried out in a limited manner in accordance with the guidance available2, with about 90 officials of IAs and 19 WB staff during Apr 16-20, 2020 in a virtual manner.

Legal and Regulatory Framework

6. India has well defined environmental and social regulatory framework. The regulation applicability depends on nature of work and location of work. Broadly legislation can be divided into four categories viz environmental, forests, wildlife conservation and social. The applicability analysis of regulations pertaining to all the above four categories was carried out. The regulatory applicability analysis to the proposed rehabilitation work has been carried out considering nature of improvements, methodology of construction/improvement, material requirement, sourcing and transportation mode, waste generation and the conditions of the receiving environment. Central Water Commission, Ministry of Jal Shakti, Government of India has prepared ñOperational Procedures for Assessing and Managing Environmental Impacts in Existing Dam Projectsò and is under publication as a guiding document for the dam owners to systematically address in advance the environmental safeguard requirements and have discussed in detail all applicable legal requirement. Reference has been drawn from this document as well, while carrying out applicability analysis. The regulatory applicability analysis is presented in detail in Annexure 1, Table A1.1.

7. While the National regulatory framework is largely consistent and is complying with the ESF, certain gaps exist in - ESS2 relating to community workers, establishing a functional GRM for

[1]In light of the COVID pandemic, Government of India announced a country wide lockdown between March 25 to April 14, 2020, that constrained holding of consultation meetings

[2] Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings, March 2020

different types of workers, ESS 4 relating to community exposure to health, ESS 5 relating to identification of non-title holders as PAPs, R&R entitlements, ESS 7 relating to consent of tribal habitations outside of designated Schedule V and VI areas, ESS 10 relating to identification of vulnerable and disadvantaged for engagement in project consultations, establishment of GRMs. The gaps are being covered by suitable project specific framework instruments and implementation arrangements listed in this ESMF. The present set of structural interventions from PSTs and outcomes of ESDDs indicated that no additional statutory clearances are required for the Sub-projects, other than the operational clearances required to be taken from local authorities by the Contractor.

E&S Risks and Impacts

8. The type of interventions indicate that the interventions are concentrated within dam area and impacts are also localized. There is no direct impact due to construction activities envisaged. Though fishing activities are prevalent in most of the dam areas, the proposed interventions shall not directly or indirectly impact the livelihoods of the fishing communities. The proposed interventions do not alter the u/s storage and d/s flow of water. An assessment of the activities indicated that the proposed interventions are taken up in the areas already owned and possessed free of any encumbrances, by the WRD and do not require any additional land acquisition. The works also do not restrict physical and livelihoods access. Findings of ESDD studies3 from 10 dams have also been considered in validating the E&S Risks and impacts assessment for the purpose of developing this ESMF.

9. The environmental and social risk rating for the Project as a whole has been rated as High, because the project is expected to cover many existing dams across various States in India with varying geographical conditions and environmental and social sensitivities. Project Components include exploring piloting of alternative sources of revenue generation at few dams as pilot activities, such as tourism, floating solar panels, etc. These pilot activities are currently not known and environmental and social impacts and risks will need to be assessed when they are identified. Additionally, the capacity of implementing agencies, i.e., the Central Water Commission, participating States and other Central dam owning agencies towards management of E&S risks is low and necessitates significant capacity building efforts.

10. Anticipated E&S risks and impacts by each standard include: ESS 1 - The works may lead to interface of migrant labor with communities and this risk would vary by site and depend on the nature of works proposed. Under ESS1, SEA/SH (GBV) risk mitigation guidelines as per overall GBV risk mitigation framework is required; ESS 2&4 ï workers stay at site for a period ranging from some months to about 3 years, the works involve risks of accidents on account of working at heights, working on upstream body of dam, underground activities, etc. Specific Occupational health and safety plans conforming to WB ESHS guidelines are proposed to be prepared for ensuring accident/incidence free working at dam site. Plans will include defined OHS instructions including use of PPE, medical checkup, training and awareness of workers. The project is likely to involve direct labor, contract labor and community workers, workers compensations, GBV, GRM issues are some of the potential risks herein; ESS 3 - Use of resources such as water and power during construction, pollution generation from storage and handling of material, generation of waste, use of paints and other chemicals for construction activities, transportation of raw material, etc., Risk is associated on soil quality due to disposal of debris, Air quality, water quality, noise level and resource use ï all such risk and impacts are anticipated to be localised and moderate in nature; The piloting of solar power generation projects also contribute, in reduction

[3] Ref, Annexure 4

of GHG emissions. In addition to ESF, the World Bank Group Environmental Health & Safety Guidelines will also be taken care in the project through ESMP; ESS 4: Dam safety assessments will be undertaken conforming to ESS4 by the DSRP and as per the Guidelines for Safety Inspection of Dams (CWC, January2018) early in the project preparation as basis for identifying / assessing priority remedial measures. While doing so, Good Practice Note on Dams Safety (The World Bank, 2020) may also be referred. The larger construction activity such as additional spillway construction may have risk to ecosystem services which may have results in adverse health and safety risk to depended community and will be assessed through detailed ESIA studies; ESS 5 ï The present set of interventions as per PSTs available do not indicate any land acquisition impacts or livelihood impacts. Where such impacts are identified, RPF provisions will apply; ESS 6 - Dams may be located in the vicinity of conservation areas or national wildlife sanctuaries or parks. Construction of larger structures like spillway may lead to cutting of larger number of fully-grown trees and/or diversion of forest area and changes in water flow may have impacts on aquatic ecosystems. May have high risk to ecosystem service and needs to be adequately addressed through appropriate avoidance, minimization or mitigation and compensatory measures; ESS 7 - Non-structural interventions for dams located in Schedule V areas and/or having tribal population that meet characteristics outlined in ESS7. As part of activities under Component on additional Revenue Generation, Tribal households may also benefit from the work/income generation opportunities relating to tourism works, water recreation activities, motorboats, fishing, solar power/floating solar etc. These activities in no way cause restriction on access to land or use of resources by local communities and there is no economic displacement envisaged due to the sub-project. Proposed activities which possibly lead to adverse impacts on land and natural resources, cause relocation, and/or have significant impacts on their cultural heritage will require obtaining Free Prior and Informed Consent (FPIC) and will be only taken if such FPIC is obtained. Non-structural interventions will involve consultation with variety of stakeholders including tribal groups who need to be consulted and informed in culturally appropriate approach ï language, techniques that are familiar to them.; ESS 8 - The project is rehabilitating existing dams thus envisaging low risks and impacts to cultural heritage at this stage. However, possibility of chance find will be included for construction activities.; and ESS 10 ï Stakeholder consultation is an overarching requirement in the Project preparation and implementation with respect to engagement of all three categories of stakeholders ï affected; other interested and disadvantaged and vulnerable.

11. Cumulative Impacts: The project activities proposed under DRIP-2 are limited to rehabilitation and strengthening of already constructed and existing operational dams resulting in improvement of their operational efficiency and lifespan. The project activities are unlikely to interface or overlap with other developments in the region. The hydrologic changes in the design of the project will improve safety while operating procedures will help smoothen dam operation. Therefore, project activities under DRIP 2 are unlikely to cause any cumulative impacts and thus, cumulative impact assessment is not envisaged for the project. All high and substantial risk activities will undergo detailed ESIA.

Application of ESMF to Sub-project development

12. ESMF will be applied to the overall project through a two-stage process. In first stage, Environmental and Social Due Diligence Assessment of all sub-project Dams using E&S scoping and screening checklists will be conducted to identify E&S risks and impacts and to determine risk category4 of the overall project (L/M/S/H). In second stage, based on risk category, for L or M risk category projects ESMP will be prepared by updating Standard ESMP, with mitigation

[4]Qualitative evaluation criteria for risk classification is detailed at Annexure 3.

plans for the relevant ESS triggered by project specific activities. Standard ESMP which will be approved by the World Bank, will serve as reference ESMP which shall be updated by IA, depending on dam specific project activities. In case even one of the 11 parameters in the E&S screening exercises at ESDD stage, results in a rating of either Substantial or High, then the E&S risk category of the sub-project would be categorized as Substantial or High. Following which ESIA would be carried out as per the given Terms of Reference that have been approved by World Bank. The ESIAs would be conducted by the SPMU/IA with the help of professional consultants5and ESMP including mitigation instruments as per relevant ESS would be prepared. The ESMP shall also contain Stakeholder Engagement Plan in accordance with SEF. The contractor specific actions shall be annexed in the bid document.

13. The ToRs for ESIA studies require to: define projectôs óstudy areaô or project influence area including related to associated facilities and conduct surveys (primary baseline surveys and data collection) on existing environment & socio-economic profile/setting; review of Environmental & Social Legal requirements; carry out analysis of impacts and management measures; provide environmental inputs to engineering feasibility studies; prepare specific management plans for mitigating risk and complying to WB ESS requirements, conduct Social Impact Assessment including qualitative and quantitative surveys to identify potential adverse impacts on land, assets, encroachments, community assets; impacts on disadvantaged and vulnerable; impacts on tribals; develop mitigation plans in accordance with the entitlement policy and assistance package: identify gender concerns/gaps; identify types of project workers/labor and associated risks; possibility of migrant labor leading to GBV risks; undertake stakeholder assessment & consultations, providing modes for citizen engagement and GRM (including for anonymous, vulnerable and disadvantaged). Based on the ESIA findings, the ESMP will be developed and depending upon the relevance of ESS 1,2-8, etc. These plans shall be ready before the sub project bids are issued and relevant plans would be included in the bid document.

14. Implementation process of application of ESMF in sub projects: ESDD studies will be carried out for 100% of all sub projects. The SPMU will review the ESDD report and finalize the recommendation on risk classification. Following this, SPMU will forward these reports to CPMU for review. Once the CPMU reviews, it will send the first 3 ESDD reports from each IA to World Bank for reviewing completeness, correctness, compliance and approval. Additionally, World Bank will select and review 25% of the ESDD reports of dams, annually. In case the risk classification by SPMU is recommended as S or H, 100% of such sub projects would be forwarded to CPMU, which in turn will review and forward it to the World Bank for approval. Similarly, 100% of the pilot works proposed, i.e., tourism, floating solar etc. for augmenting revenue sources will go through ESDD process, after SPMU review, CPMU will review and will share with the World Bank for review and approval. In case of sub-projects with Substantial or High-risk categorization, all ESIAs and subsequent ESMPs shall be reviewed by WB.

Institutional arrangements for Implementation, Monitoring and Evaluation

15. Central Water Commission has the responsibility for project oversight while coordination will rest with the DSO in CWC, that will act as the Central Project Management Unit (CPMU). The Chief Engineer of the DSO will be the Project Director (PD), and will be assisted by the Directors, staff of their respective directorates, Engineering and Management consultants (EMC). CWC will designate Nodal officers to coordinate and carry out day to day E&S activities. These

[5]Indian regulation mandates that EIAs study for dam has to be undertaken by NABET approved consultant accredited for river valley projects . independent consultant will be appointed having accreditation with NABET for relevant sector.

Nodal/coordinating officers (full-time engineering staff) to handle environmental and social areas, will beat the level of Deputy Directors report to Project Director and commensurate time will be given by these officials for successful implementation and monitoring of various E&S related activities. These designated officers are department engineers which are recruited at national level through competitive engineering services examination. The Nodal Officers will be supported by the E&S specialists drawn from the EMC team. At the state level, SPMUs, will have overall responsibility for the coordination of the project activities, both technically and qualitatively and will monitor the physical and financial progress including E&S issues. Each IA will appoint a Project Director (PD) and Project Management Unit (PMU) attached to the Chief Engineer / Superintending Engineer in charge of the DSO. SPMU will also have a dedicated nodal officer of the level of Executive Engineer/Deputy Directors to look after environmental and social activities and implementation. The SPMUs will summarize the implementation of the project and submit reports to the CPMU in a format generated for a MIS. The SPMUs will coordinate the work with Chief Engineers of the WRDs and other owners of dams. At the SPMU level, E&S specialists will be hired from competitive open market for the project.

16. SPMU will share on Quarterly basis ESMP implementation status (50% of the sub projects/ dams in case of low to moderate risk ESMPs and 100% sub projects/ dams, in case of substantial to high ESMPs and other pilot works of high impact such as tourism development, solar power development etc.) relevant plans as per Environment Standards and all activities as stated above, with CPMU at CWC. CWC in turn will share these reports (25 % in case of low to moderate and 100% in case of Substantial to High risk sub projects) with The World Bank. In addition, CWC ï CPMU through EMC will conduct an Annual Evaluation of implementation of Environmental and Social Management Framework of all IAs, as per TOR agreed with WB, and prepare and submit evaluation report and corrective actions to The World Bank. Evaluation will be undertaken considering ESCP, site specific EMP including OH&S plans. The final monitoring and evaluation reports will be shared with Bank and concerned agencies as per timelines and shall be placed in MIS of DRIP II Project and annual reports.

Grievance Redress Mechanism

17. As the GRM works within existing legal and cultural frameworks, it is recognized that the GRM shall comprise project level and respective State level redress mechanisms. Most project related grievances could be minor and site-specific. A Three tier GRM, i.e. at the sub-project level and SPMU level (State government level) and CPMU (CWC level) will be implemented. The establishment of GRM/GRC will be well publicized. Most grievances are to be received directly on site by the designated site representative of SPMU that shall endeavor to resolve them satisfactorily on site. The designated site representative shall inform the SPMU of these complaints and their outcomes, including those not satisfactorily resolved.

18. The nodal officer shall, on receipt of each complaint, note the date, time, name and contact details of the complainant, and the nature of the complaint in the Complaints Register. The nodal officer shall inform the complainant of when to expect a response. S/he shall then endeavor to address it to the best of his/her abilities, as per stipulated timelines. Should the nodal officer not be able to resolve the complaint to the satisfaction of the affected persons, he/she shall then refer the complaint directly to the DRIP ï II Project Director (PD) at the Central level.

19. Complaints referred to the PD will require him/her to take earnest action to resolve them in the earliest time possible. It would be desirable that the aggrieved party is informed of the course of action being taken. Reporting back to the complainant shall be undertaken within time specified for disposal of grievances. If the complaint is not resolved to the satisfaction of the aggrieved

party, the complainant is free to take legal recourse. The decision of the judiciary will be binding on the Project, in case PAPs seek to exercise legal option for grievance redressal. Vulnerable, physically disadvantaged are provided with special focus in GRMs. In addition, a separate GRM channel for the workers will be established in compliance with ESS 2.

ESMF budget

20. The Project Component 4 on Project Management provides budget towards afore-mentioned items/activities covering : (i) CPMUôs coordination of E&S activities by the Implementing Agencies (IAs) of the project, supported by an Engineering and Management Consultant (EMC) (ii) hiring of E&S experts on a contractual basis at the IA level; (iii) setting up a monitoring and evaluation (M&E) system that will conduct the Annual Evaluation exercise. CPMU and SPMUs will provide adequate budget for preparation and implementation of all safeguard instruments from the counterpart funding, besides for conducting trainings, exposure visits and capacity building events. ESMF budget has been estimated about 0.5% (USD 2.5 million) of the total project costs and will be used by SPMU from the above components; however, the budget amount may vary based on the need of the project. Costs of ESMP implementation would be included within each dam ESMP and their break-up would depend on the nature of activities, extent of impacts and proposed mitigation measure. World Bankôs funding will be available for costs such as works, purchase of goods and services, where required.

Linkage to the ESCP

21. The Environmental and Social Commitment Plan (ESCP) sets out material measures and actions, any specific documents or plans, as well as the timing for each of these. The ESCP which will be part of legal agreement and will be signed by each participating states and Implementing agencies (IAs) will require the IA to comply with the provisions of any other E&S documents required under the ESF and referred to in the ESCP, such as the Environmental and Social Impact Assessments (ESIAs), Environmental and Social Management Plans (ESMPs), Bio-diversity Management Plan, Stakeholder Engagement Plan, etc. The ESCP will be prepared considering the findings of the environmental and social assessment based on the ESMF, the Bankôs environmental and social due diligence and the results of engagement with stakeholders. It will clearly spell out the plans to be prepared with timeframe and responsibility. Adherence to the aforementioned ESMF processes and provisions will therefore be ensured through the ESCP.

Contingency Emergency Response Component

22. In case of emergency and if GOI through CWC requests the World Bank to activate the CERC, the current ESMF prepared by CWC will be updated within 90 days of activating the CERC and will include a positive list of eligible activities / expenditures at the time of activation. In addition, the ESCP will be accordingly amended to include the provision as per the updated ESMF within 90 days of CERC activation.

Updating of ESMF

23. Revision/Modification of the ESMF: This ESMF will be an ñup-to-dateò or a ñlive documentò enabling revision, when and where necessary. Unexpected situations and/or changes in the project or subcomponent design would therefore be assessed and appropriate management measures will be incorporated by updating the Framework to meet the requirements of countryôs legislations and Bank ESF. Such revisions will also cover and update any changes/modifications introduced in the legal/regulatory regime of the country/ state. Also, based on the experience of application

and implementation of this framework, the provisions and procedures would be updated, as appropriate in consultation with the World Bank and the implementing agencies/departments. Finalized version of updated ESMF will be submitted to WB for its review and approval.

Information disclosure

24. A Project level Stakeholder Engagement Framework is prepared and disclosed, which shall guide the information disclosure of various project information and documents on the DRIP website (https://www.damsafety.in) operated by Central Water Commission and websites of Project IAs. This document shall also be available in the office of engineer in charge of the respective dam. These documents shall be disclosed/disseminated through other appropriate means like various Project meetings, workshops etc. To date, the 10 ESDDs have been disclosed on the site, which will be followed by this ESMF and other documents. Besides the draft disclosure documents (and the final documents in future), project brochures and updates are /will be disclosed/ disseminated through these channels. In addition, details about the Grievance Redress Mechanism and contact details will also be disseminated. CPMU ï DRIP II shall update and maintain the website regularly and oversee the information disclosure/ dissemination activities of SPMUs as well as CPMU. Executive summary of ESMF will be made available in Hindi and other local languages through above referred channels.

1. INTRODUCTION

1.1 Background

1. India has more than 5400 large dams with a storage capacity of about 300 billion cubic meters which are crucial of water security and Indiaôs continued economic growth and poverty reduction. Most of the dams have been constructed and managed by State government. The performance of these dams is steadily declining, largely due factors like: age of dams; damaged structures; inadequate instrumentation and monitoring; outdated reservoir operation practices; inadequate regulatory and operational safety measures. The Government of India (GOI) initiated Dam Rehabilitation and Improvement Project (DRIP-1) to overcome such structural, electro-mechanical and instrumental weaknesses. GOI had undertaken support from World Bank for DRIP-I project for about 223 damôs rehabilitation which is under implementation since 2010. The Project aimed to rehabilitate and improve dams and associated appurtenances, and to strengthen institutions. GOI has proposed to expand the reach of DRIP by bringing in additional States and dams.

1.2 Project Description

2. The proposed Dam Rehabilitation and Improvement Project (DRIP-2) would complement the suite of ongoing and pipeline operations supporting Indiaôs dam safety program. The project would continue to finance structural improvements but would break with the prevailing build-neglect-rebuild approach by giving greater emphasis to establishing sustainable mechanisms for financing regular O&M and dam rehabilitation, enhancing State capabilities to manage these critical assets through institutional strengthening, and introducing risk-informed dam safety management. The project development objective (PDO) is to is to increase the safety of selected dams in participating States and to strengthen dam safety management in India. Project Components include:

3. **Component 1:** Rehabilitation and Improvement of Dams and Associated Appurtenances**(US$577.14 million, of which IBRD US$409.10 million):** This component aims to reduce the likelihood and consequences of dam failure by improving dam safety planning, management and rehabilitation in selected dams. This component will support management, monitoring, and structural interventions. Preventative measures to reduce dam safety risk focused on management and monitoring will be prioritized. Structural interventions to improve dam safety will include rehabilitation of dam structures and appurtenances, with attention given to the need to minimize social and environmental impacts.

   Component 2: Dam Safety Institutional Strengthening**(US$45.74 million, of which IBRD US$29.89 million):**This component will focus on (i) improving the efficiency of public financing, starting with the preparation of Public Expenditure Reviews (PERs) for all participating States/Agencies; and (ii) establishing financing arrangements for dam safety (e.g., dedicated budget lines). A study of potential sources of financing in the sector will be completed during implementation and will inform the activities under this component. This component aims to strengthen the capacities and institutional framework for dam owners, operators, agencies that have oversight of dam safety, and policy makers to identify and address dam safety risks. The component will support various activities to modernize institutions for dam safety. A major focus of activities under this component will be strengthening dam safety by developing dam safety guidelines and by enabling agencies that oversee dam safety to carry out their regulatory functions as per the Dam Safety Bill that has been passed by the Lok Sabha and is expected to be submitted to the Rajya Sabha. This component will ï i) focus on strengthening dam safety research and development (R&D) capacity and on national and international knowledge sharing; ii) support a comprehensive

dam safety capacity building program for dam owners, operators, agencies overseeing dam safety, and policy makers based on a detailed institutional needs assessment; iii) address recruitment, retention, and advancement issues for women engineers in dam management by supporting specialized training for women engineers and the development of professional networks; iv) support dam safety institutions to develop education and communication capacity to raise awareness on dam safety issues and communicate dam safety risks to the public.

Component 3: Incidental Revenue Generation for sustainable operation and maintenance of dams**(US$26.84 million, of which IBRD US$19.03 million):**This component aims to increase the financing available for periodic dam safety needs and regular O&M. The identification of financing needs for dam safety will be achieved by improving asset management and dam risk assessment. Together, the asset management system and the risk assessment will identify long-term funding needs for the sector and trade-offs related to investment decisions. The component will also support developing more sustainable sources of funding through strengthened financing arrangements and revenue generation to improve the availability of funds for dam safety.

Component 4: Project Management (US$68.13 million, of which IBRD US$40.73 million): This component will ensure effective implementation of project activities and monitoring and evaluation of project implementation progress, outputs and outcomes. The component will support: (i) operations of the Central Project Management Unit (CPMU), which will oversee and coordinate activities of the Implementing Agencies (IAs) of the project, supported by an Engineering and Management Consultant (EMC), which is required to be in place within one year of project effectiveness;[6] (ii) operations of PMUs within IAs, which can hire experts in various fields on a contractual basis; (iii) setting up of a monitoring and evaluation (M&E) system; and (iv) establishment of a Quality Assurance and Quality Control system that is based on proportionate risk as defined in the Good Practice Note (GPN) / Technical Guidance Notes on Risk-Informed Dam Safety Management under the ESF. This component will also finance consultancies, as well as related material, office equipment and incremental operating costs. The project will provide investment and technical support for the establishment of a Management Information System (MIS) for the project.

Component 5: Contingent Emergency Response Component (US$0 million): This component allows provision of immediate response to an Eligible Crisis or Emergency, as needed. For example, following an adverse natural event that causes a major natural disaster, the government may request the World Bank to re-allocate project funds to support response and reconstruction. This component will draw resources from the unallocated expenditure category and/or allow the government to request the World Bank to re-categorize and reallocate financing from other project components to partially cover emergency response and recovery costs. This component could also be used to channel additional funds should they become available as a result of the emergency.

4. The primary beneficiaries of the project are the communities that live in dam breach flood inundation areas and the communities that depend on water, irrigation and electricity services provided by the dams that could be compromised by poor dam performance or failure. In addition to saving lives, improved dam safety will avoid potential flood damage to houses, farm areas, infrastructure (roads, bridges, other public and private infrastructure) and industrial and commercial facilities. Improved dam safety will also reduce the likelihood of service interruptions due to dam failure as well as potentially improving dam service provision, overall efficiency and storage capacity, including during drought periods.

[6]A technical consultancy is currently supporting CWC to implement DRIP-1 and AF. This technical consultancy will continue as the EMC for DRIP-2 until the EMC is in place.

1.3 Lessons learnt from implementation of ESMF in DRIP I and DRIP AF

5. In the ongoing DRIP I and in the Additional financing Phase of DRIP-I, an ESMF approach was adopted to assess the environmental and social impacts of the interventions undertaken for each dam. Key learning included:
   a) Monitoring of the Environmental and Social parameters as stipulated in the ESMF had not been upto the desired level of World Bank
   b) State level IAs were not having designated nodal officials to manage E&S aspects, besides which periodic reporting on E&S aspects too was absent
   c) Environmental, Social, Health and Safety (ESHS) monitoring was not upto the desired level;
   d) Environmental and social monitoring capacity building was not very exhaustive. Very few trainings were conducted to augment capacity of staff with respect to provisions laid down in the ESMF and their application;

6. To ensure adequate attention of environmental and social safeguards on institutional side, during additional financing phase, it was ensured that CPMU and SPMUs were strengthened with dedicated, one or more specialists familiar with environmental and social issues and designated as EE (ESMF) will be appointed. This specialist would review screening forms, ESMPs, and other related documents, and monitor the compliance with the agreed documents. It was also ensured that work is not awarded before ESMP has been included in the bid document and is signed off by environmental and social designated staff at CPMU/ SPMU. Reporting requirements were strengthened through standard progress reports about the compliance with the ESMF requirements.

   However, despite these, E and S management system improvement remained a challenge.

1.4 Purpose of ESMF

7. At the time of preparation of this ESMF, the details of sub projects and corresponding nature; type and extent of environmental and social impacts are known only for 10 dams in 2 states ï Rajasthan and Manipur. However, such details for majority of the dams that are to be taken up under the project, shall be known only during project implementation. Accordingly, this Environmental and Social Management Framework (ESMF) has been developed to serve as an instrument to guide the Implementing Agencies on undertaking necessary E&S due diligence on each sub-project. Based on the ESDD findings accord a risk category (Low/Medium/Substantial/High) to each sub-project and undertake detailed ESIAs, if necessary, including the development of sub-project specific plans to meet the requirements of the relevant Bank Standards. ESMF provides overarching framework to manage environmental, social, health and safety (ESHS) issues associated with the implementation of sub-projects, during construction and operational phases.

1.5 Methodology for development of ESMF

8. Since the World Bank ESF (Environment and Social Framework) requires greater focus on risk management. This ESMF is an update to the DRIP I and DRIP I AF ESMF, prepared as per previous safeguards policies. The methodology, herein, covers the lessons learnt from implementation challenges from earlier ESMF as well as the new requirements governed by the ESF and include the following:
   a. consideration of the implementation experience of ESMF in DRIP I and AF (ref. para 5)
   b. review of project components and sub-projects of DRIP II, including the new types of infrastructure proposed towards Additional revenue generation through a review of Project Screening Templates;
   c. findings from the ESDD including screening and stakeholder consultations that were

undertaken for the first set of 10 dams in the two states of Rajasthan and Manipur;

d. analysis of overall E&S risks and impacts;
e. assessment of current institutional capacity to manage E&S risks and impacts;
f. consideration of requirements of the new ESF, particularly: Labor Management Procedure (ESS 2), Stakeholder Engagement Plan (ESS 10), Community health and safety management (ESS 4), and Pollution prevention and resources management measures (ESS 3) to meet the requirements of relevant ESS;
g. existing national and state level legislations and guidelines ï their provisions and requirements vis-à-vis ESF, 2016 and to identify gaps therein and address them;
h. interactions and consultations with CPMU and SPMUs on the draft ESMF for soliciting views, suggestions, feedback and their incorporation towards finalizing the ESMF

In light of the COVID pandemic induced restrictions[7]towards stakeholder consultations, consultations on draft ESMF were carried out in a limited manner in accordance with the guidance available[8].Consultations were held with the representatives of CWC and IAs, details of which are summarized in section 5.3 and Annexure 17.

1.6 Structure of the ESMF

9. The ESMF report is presented under the following chapters:

Chapter 1: Introduction that provides a background of the project; project description including components; lessons learnt from application of ESMF under DRIP I and DRIP AF; methodology adopted for preparation of ESMF for DRIP 2

Chapter 2: Policy, Legal and Regulatory Framework: It analyses all relevant legislations, their applicability; compares provisions and requirements with WBôESF policy and 10 ESS

Chapter 3: Environmental and Social Assessment of the overall project based on the assessment of risks and impacts of all types of sub-projects and sub-project activities and also based on E&S findings from the first set of 10 dams,

Chapter 4: Environmental and Social Management Framework describes the process that shall be adopted for each dam to identify the risk and impacts; accord a E&S risk category to each sub-project; identify necessary mitigation measures

Chapter 5: Stakeholder Consultations and Disclosure describes the consultations held thus far as towards development of ESMF

Chapter 6: Institutional arrangements describes the implementation, monitoring and grievance redressal arrangements including provisions outlined in the Environment and Social Commitment Plan(ESCP)

Annexures: Annexures comprise of Applicability analysis of National Policy, Legal and Regulations, World Bank Environmental and Social Framework Standards; ESDD and other templates; E&S Screening Process; Terms of Reference for ESIA and other studies; Standard ESMP (Appendix 1); Frameworks to meet the requirements for relevant ESS ï GBV/SEAH Risk Mitigation, Occupational Health & Safety Management for Workers and Community, Pollution Prevention and Environment Quality Management, Resettlement Policy Framework, Biodiversity Conservation and Management, Tribal Development Framework Cultural Heritage Protection Plan; and TOCs for various assessments and plans; ESMF Consultations; Consultations at 10 sub project sites; Suggestive ToR for Nodal Officers.

[7]In light of the COVID pandemic, Government of India announced a country wide lockdown between March 25 to May 17, 2020, that constrained conducting face to face consultation meetings

[8] Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings, March 2020

2. POLICY, LEGAL AND REGULATORY FRAMEWORK

2.1 Applicable National Policy, Rules and Regulations

10. India has well defined environmental and social regulatory framework. The regulation applicability depends on nature of work and location of work. Broadly legislation can be divided into four categories viz environmental, forests, wildlife conservation and social. The applicability analysis of regulations pertaining to all the above four categories was carried out. The regulatory applicability analysis to the proposed rehabilitation work has been carried out considering nature of improvements, methodology of construction/improvement, material requirement, sourcing and transportation mode, waste generation and the conditions of the receiving environment. Central Water Commission, Ministry of Jal Shakti, Government of India has prepared ñOperational Procedures for Assessing and Managing Environmental Impacts in Existing Dam Projectsò and is under publication as a guiding document for the dam owners to systematically address in advance the environmental safeguard requirements and have discussed in detail all applicable legal requirement. Reference has been drawn from this document as well, while carrying out applicability analysis. The regulatory applicability analysis is presented in detail in Annexure 1, Table A1.1

11. Water Act 1974, Air Act 1981, EP Act 1986, EIA Notification 2006, HW Rules 2016, Wild Life Protection Act 1972, Bio Diversity Act 2002, Forest (Conservation) Act 1980, Ancient Sites and Archeological Sites and Remains Act 1958, ST and other Tribes Forest Dwellers (Recognition of Forest Rights) Act, 2006, Fifth Schedule under Article 244 (i) of the Constitution, RFCTLARR Act 2013, Minimum Wages Act 1948, Child Labour (Prohibition & Regulation) Act 1986, Sexual Harassment of Women at the Work Place (Prevention, Prohibition and Redressal) Act 2013, Rights of Persons with Disabilities Act, 2016, Right to Information Act 2005 are some of the key E&S legislations relevant for the Project. Besides, many of the labor related laws that require adherence during construction would be applicable to the project as well as Employees Compensation Act 1923 (for compensation in case of injury, disease or death arising out of and during the course of employment); Payment of Gratuity Act (on satisfaction of certain conditions on separation if an employee has completed 5 yearsô service; Maternity Benefit Act 1961 (provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.); Payment of Wages Act 1936 (lays down the mode, manner and by what date the wages are to be paid, what deductions can be made from the wages of the workers); Equal Remuneration Act 1976 (provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.). Child Labour (Prohibition & Regulation) Act 1986 (prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in the Building and Construction Industry. Bonded Labour System (Abolition) Act, 1976 (The Act provides for the abolition of bonded labour system with a view to preventing the economic and physical exploitation of weaker sections of society. Bonded labour covers all forms of forced labour, including that arising out of a loan, debt or advance).

12. The Dam Safety Bill 2019 establishing and empowering the institutional set-up for dam safety practices is currently under the process of enactment by Government of India.

2.2 Applicability of WB ESS

13. World Bankôs ESF comprising E&S policy and standards are relevant to identify, avoid and mitigate the potential negative environmental and social risks and enhance the effectiveness

of the positive impacts. Based on the: experience of DRIP 1 activities, the proposed activities under Component 2 on additional revenue generation and the ESDDs undertaken in the first set of 10 dams, ESS 1-8 and 10 are likely to be relevant depending on the proposed activities at each dam site. The extent of relevance of these standards would vary depending on nature of sub-projects and sub-project activities. Applicability analysis is presented at Annexure 1, Table A1.2.

2.3 Comparison of National legislation and Bank' ESF

14. While the National regulatory framework is largely consistent and is complying with the ESF, certain gaps exist in - ESS2 relating to community workers, establishing a functional GRM for different types of workers, ESS 4 relating to community exposure to health, ESS 5 relating to identification of non-title holders as PAPs, R&R entitlements, ESS 7 relating to consent of tribal habitations outside of designated Schedule V and VI areas, ESS 10 relating to identification of vulnerable and disadvantaged for engagement in project consultations, establishment of GRMs. The gaps are being covered by suitable project specific framework instruments and implementation arrangements listed in this ESMF. The present set of structural interventions from PSTs and outcomes of ESDDs indicated that no additional statutory clearances are required for the Sub-projects, other than the operational clearances required to be taken from local authorities by the Contractor. Table 2.1 provides a comparison of the national Policy, Regulations and ESF duly highlighting the policy gaps and gap filling/ redressal measures.

Table 2.1:Comparison of National Policies, Regulations and ESF and Gap Filling Measures/ Redressal

S. NO	ESS	Equivalent National Environmental Policy and Regulations	Policy Gaps vs ESS and gap filling (redressal) Measures
1	ESS1: Assessment and Management of Environmental and Social Risks and Impacts	• Environment Protection Act/Rules-1986 • Environmental Impact Assessment Notification-2006, 14th Sep-2006, as amended in 2009 and 2013	ESS1 is applicable for all projects, sub-projects and Associated Facilities[9]. Gaps exist regarding assessments, consultations, monitoring and ESCP. The following additional measures are required: • Conduct an environmental and social assessment of the proposed project; • Undertake stakeholder engagement and disclose appropriate information in accordance with ESS10; • Develop an ESCP, and implement all measures and actions set out in the legal agreement including the ESCP; and • Conduct monitoring and reporting on the environmental and social performance of the project against the ESSs
2	ESS2: Labour and Working Conditions	• The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 and the Building and Other Construction Workers Welfare Cess Act, 1996 (BOCWW Cess Act) • Contract Labour (Regulation & Abolition) Act 1970, • Minimum Wages Act 1948, Payment of Wages Act 1936, • Child Labour (Prohibition & Regulation) Act 1986, • Inter-State Migrant workmenõs (Regulation of Employment & Conditions of Service) Act 1979 • Employees Compensation Act 1923 • Payment of Gratuity Act 1972 • Employees P.F. and Miscellaneous Provision Act 1952 (since amended) • Maternity Benefit Act 1961 • Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act, 2013 • Payment of Wages Act 1936 • Equal Remuneration Act 1976 • Payment of Bonus Act 1965 • Industrial Disputes Act 1947	The National legal provisions almost cover all requirements in ESS2 except relating to community workers and a functional GRM for different types of workers. Hence, an overall project level Labour Management Procedure will be prepared to cover above requirements. The project specific OHS management plan will use appropriate good international practices/standards (such as WBG EHS guidelines, ILO standards, International Tunnelling Association standards) which will be followed in conjunction with requirements defined under various Indian legislations.

[9]Ref para 11, ESS1, ESF 2016

S. NO	ESS	Equivalent National Environmental Policy and Regulations	Policy Gaps vs ESS and gap filling (redressal) Measures
		• Trade Unions Act 1926 • Inter-State Migrant workmenôs (Regulation of Employment & Conditions of Service) Act 1979 • Factories Act 1948 • Bonded Labour System (Abolition) Act, 1976 • Employerôs Liability Act, 1938 • Employees State Insurance Act 1948 • The Personal Injuries (Compensation Insurance) Act, 1963 • Industrial Employment (Standing Order) Act 1946	
3	ESS3: Resource Efficiency, Pollution Prevention and Management	• Environmental protection Act, 1986 and Rules with amendments till date • Air (Prevention and Control of Pollution) Act, 1981, 1987; • Water (Prevention and Control of Pollution) Act, 1974, 1988; • Noise Pollution (Regulation and Control Act) 2000 and amendment till date • Notification for use of fly ash, 2003 and MoEF&CC notification dated 25th March 2015 • Municipal Solid Waste (Management & Handling) Rules, 2000 (MSW Rules) • Hazardous & Other Waste (Management and Trans-boundary Movement) Rules, 2016 • Manufacture Storage, & import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended till date • Batteries (Management and Handling) Rules, 2001 • The E-Waste (Management) Rules, 2016, • Plastic waste Management Rules, 2016 • Construction & Demolition, Waste Management Rules, 2016 • Solid Waste Management Rules, 2016 • Motor Vehicle Act 1988 and amendment till date • Rajasthan Minor, Mineral Concession Rules, 2017	The majority of ESS3 requirements are addressed by existing regulations and indirectly for resource efficiency, pollution prevention and management aspects. Further, provisions need to be made to commensurate mitigation measures as: • To assess the resource requirement and implement technically and financially feasible measures for improving efficient consumption of energy, water and raw materials, as well as other resources. • Preparation of Resource Efficiency and Pollution Prevention Plan to assess and minimize/control the concentration of release of pollutants to air, water and land due to routine and non-routine circumstances, and with the potential for local and regional impacts.
4	ESS 4: Community Health and Safety	• Air (Prevention and Control of Pollution) Act, 1981; • Water (Prevention and Control of Pollution) Act, 1974, for Pollution- Prevention-and-Management; • The Noise Pollution (Regulation And Control) Rules, 2000 • Guide Lines on Traffic Management in Work Zones IRC:SP:55 ï 2014, • Municipal Solid Waste (Management &	While Acts cover for all of ESS 2 and ESS 4 requirements, gaps exist for community - community exposure to health issues. The gaps need to be addressed through suitable provisions in ESMP.Also, contractor obligation as part of ESMP for Community health and safety to include need for Influx management Plan, , Traffic and road safety management Plan. ESMP shall address Dam

S. NO	ESS	Equivalent National Environmental Policy and Regulations	Policy Gaps vs ESS and gap filling (redressal) Measures
		Handling) Rules, 2000 (MSW Rules) • The Gas Cylinder Rules 2016 • Manufacture, Storage, Import and handling of Hazardous Chemicals Rules 2000 (MSIHC) • Hazardous Wastes (Management, Handling and Trans-boundary Movement) Rules, 2008. • Construction & Demolition, Waste Management Rules, 2016	Safety and Security Personnel issue as per findings of ESDD.
5	ESS 5: Land Acquisition, Restrictions on Land use and Involuntary Resettlement	• The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	Gap exists specifically related to aspects such as identification of non-titleholders as PAPs; cut off dates for non-titleholders and valuation of structures with depreciation. The gaps are addressed with suitable provisions in RPF (See Annexure 10).
6	ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural resources	• Biological Diversity Act, 2002, • Wildlife Protection Act 1972 (WLPA), • The Forest (Conservation) Act, 1980 and amendments and The Forest (conservation) Rules 1981 and amendments • State Forest Acts,	Provisions from the acts meet the ESS 6 requirements such as maintaining the ecological function of habitats (natural, critical) including forests and biodiversity they support (terrestrial, fresh water and marine biodiversity), sustainable management of forest produceand protection of right of people depended on forests andwildlife areas. Which includes preparation of Biodiversity Conservation Plan and offsetting any loss if at all for protected area @ twice the loss area. Biodiversity Management Plan will be prepared as part of ESMP if conservation reserve/ other applicable sensitive facilities are in vicinity or has an interface. The dos and donôts shall be prepared as part of this biodiversity plan meeting requirement of WB ESS6 and Indian legislation.
7	ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Tradition Local Communities	• Article 366 (25) of the Constitution of India • Article 244(1) of Constitution of India - The Fifth Schedule under Article 244(1) of a subsequent Act of Constitution ñScheduled Areasò as such areas as the President may by order declare to be Scheduled Areas after consultation with Governor of that State. • Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 • Panchayats (Extension to the Scheduled Areas) Act, 1996	While PESA Act requires clear communities acceptance vide a Gram Sabha resolution on the proposed activity with a pre-defined quorum of participation, ESS 7 requires ascertaining Free Prior and Informed Consent under three circumstances ï impacts on land, cultural heritage and if requiring relocation. FPIC does not require unanimity and may be achieved even when individuals or groups within Indigenous Peoples/groups explicitly disagree. Hence, in such cases both Gram Sabha resolution and FPIC under these three circumstances will be required.
8	ESS 8: Cultural Heritage	• Ancient Monuments and Archaeological Sites and Remains Act, 1958	Provisions from the act meets the ESS 8 requirements. However intangible cultural heritage aspects will be addressed under ESMP where applicable

S. NO	ESS	Equivalent National Environmental Policy and Regulations	Policy Gaps vs ESS and gap filling (redressal) Measures
			Applicable only if any of the sub project directly or indirectly impacting any cultural heritage.
9	ESS 9: Financial Intermediaries	Not relevant	
10	ESS 10: Stakeholder Engagement and Information Disclosure	• Environmental Impact Assessment Notification-2006, 14th Sep-2006, as amended in 2009 and 2013 • Right to information Act 2005	There is a provision of public hearing in EIA notification and also RFCTLARR Act 2013 mandates consultations with affected persons. However, the statutory process does not require preparation of a SEP or equivalent document as well as conducting meaningful consultations and information disclosure, that is accessible to all stakeholders. Measures to address the gap include ï preparation of SEF and SEP wherein process of stakeholder consultations with all stakeholders ï affected, other interested and physically disadvantaged and vulnerable groups who will be identified and engaged by the project; information disclosure that will take place on project activities/developments and feedback sought; and GRM mechanism that shall be put in place for the entire project, are described in detail.

3. ASSESSMENT OF ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

15. As per the scope of the DRIP-II project, the project is likely to cover many states and agencies in different states of India, located in mountainous, flat and coastal terrain area of the country. The project areas vary from - mountainous areas which are in seismologically high active zone and are rich in biodiversity; coastal areas which are rich in terrestrial and aquatic ecology; Plain areas having large habitations; forest areas prone to flood and scheduled V & VI areas having dominant tribal population. Most of the potential participating states have tribal population and some of these statesnamely Andhra Pradesh, Chhattisgarh, Gujarat, Madhya Pradesh, Maharashtra, Odisha, Rajasthan and Telangana have Fifth Schedule Area, while the state of Meghalaya has Schedule VI areas. Such areas have preponderance of tribal population. Nearly 60% of the population are engaged in primary occupation, while approximately 17% are engaged in secondary and around 23% are engaged in tertiary sectors. States such as Rajasthan, Uttar Pradesh and Chhattisgarh have high levels of poverty. Besides, there are large sections of population in coastal areas in states of Odisha, Andhra Pradesh that have faced extreme climate events in the recent years and are very vulnerable. The Government of India has handled very effectively recently few severe cyclones like Fani (2019) as compared to super cyclone of Odisha (1999) due to risk based decision in disaster management. Since DRIP Phase II is the continuation of ongoing DRIP Phase I, almost all activities are similar to activities implanted in DRIP Phase I except one new Component 3 introduced in new Scheme which is taken as pilot activities, wherein very few dams would be covered under this Component. Also, through DRIP Phase I, introduction of stakeholder consultation meetings to sensitize the concerned habitation about consequences of dam failure is an effort in the same direction to create greater disaster resilience.

16. This ESMF is a framework document covering the whole project and some aspects of this project-level ESMF have been informed by the ESDD studies and outcomes. The presents in this chapter are intended to be used as a guidance by IAs for preparing ESDD/ESIAs for their respective sub projects employing the screening templates. The process of assessment of environmental risks and impacts is prepared based on the sub-projectôs activities comprising structural and non-structural interventions and also those proposed sub-projects towards additional revenue generation.

3.1 Summary of E&S risks and impacts in the first 10 dams

17. Environment and Social Due Diligence (ESDD) assessments were conducted for the 10 dams in the States of Rajasthan and Manipur that have been accepted for financing under the project. The ESSDs found that this dam investments/sub T projects have low to moderate risks. The proposed structural works largely relate to minor civil works, electro-mechanical work, and instrumentation confined to the existing dams compound. Other activities include rehabilitation of existing approach roads, construction of drains, repair of barrage roads, fencing, etc., for which encumbrance free land is available with the respective IAs. The ESDD assessments found that the type of rehabilitation activities proposed under the dam investments/sub-projects are concentrated within the dam area and impacts are also localized. No direct impact due to rehabilitation and improvement activities, is expected. None of the dams are in protected areas. Two dams (Bisalpur and Jawai Dam) are close to conservation areas. None of the dam rehabilitation activities are expected to impact any significant natural habitation. Impacts expected at the construction stage can be managed appropriately with construction stage guidelines on camp site management, debris disposal management, and monitoring occupational health and safety aspects. Fishing activities are prevalent in some of

the dams, but interventions will not directly or indirectly impact the livelihoods of fisher people. In Rajasthan, two of the eight dams are located within Schedule V areas (areas constitutionally designated for tribal groups).

18. The ESDD assessments indicate that land for these interventions is available with the respective IA and that there will be only construction stage impacts. Skilled migrant labor is likely but expected to be limited (e.g., 30-50 people). Stakeholder consultations found that key vulnerable and disadvantaged groups are marginal farmers and Scheduled Tribe households in downstream areas. Dam safety interventions will provide direct benefits to downstream communities in flood inundation areas through the reduced likelihood of dam breach and consequences of catastrophic flooding events due to dam failure or uncontrolled releases of water. Non-structural interventions, such as flood warning systems and EAPs, will also reduce the vulnerability of downstream communities.

19. The outcome of this assessment exercise was used to further refine risk assessment approach included in Chapter 4.

3.2 Overall Project E and S Risks and Impacts Identified by each ESS

20. The environmental and social risk rating for the Project as a whole has been rated as High, because DRIP-II is expected to cover many existing dams across various States in India with varying geographical conditions and environmental and social sensitivities. The nature of activities known at appraisal stage in the DRIP-II project are similar to the ongoing DRIP-I project and involve structural and/or non-structural measures for ensuring dam rehabilitation. Component 3 will explore piloting of alternative sources of revenue generation, such as tourism, floating solar panels, etc. These pilot activities are currently not known and environmental and social impacts and risks will need to be assessed when they are identified. Additionally, the capacity of implementing agencies, i.e., the Central Water Commission, participating States and other Central dam owning agencies, requires significant capacity building efforts. Anticipated E&S risks and impacts by each standard are presented below:

21. **E&S risks relating to ESS 1:** E&S risks and impacts relating to three categories: i) SEA/SH or GBV risks due to migrant labor; ii) Disadvantaged and vulnerable households and iii) disabled or physically challenged are described below:

    i) GBV risks assessment has been carried out using the risk assessment tool and the risk rating is low. Even though influx of skilled migrant labor in construction works is likely, these will be few in numbers ï around 30 to 50 labor, who will mostly operate within the dam premises which is a restricted access zone and away from habitations.
    ii) In respect of E&S risks on disadvantaged and vulnerable households the following are defined under the project include: ST, family/household headed by women/female, physically challenged, Below Poverty Line (BPL) and illiterate persons/households, landless and marginal farmers, Scheduled Caste households. While, these groups are likely to experience impacts similar to other general category households but because of physical (e.g. physically challenged) and socio-economic conditions, project would need to provide them with additional assistances, measures and proactively reach out to them to mitigate these impacts and also benefit from the project opportunities.
    iii) E&S risks on the Disabled or physically challenged is mainly due to access issues to various buildings or offices such as IA offices or tourist spots and this will require to be factored in while designing various sub-project activities e.g. refurbishment or renovation of existing offices.

22. **E&S risks relating to ESS 2 – Labor and Working Conditions:** Based on the proposed execution strategies for all types of proposed sub-projects, the following categories of project workers are identified:

i) Direct workers ï all the existing dam site officials including those sent on deputation from other departments involved in the project activities;
ii) Contracted workers - all IAs would engage Contractors to undertake rehabilitation works; agencies/firms to support core service functions such as SCADA systems, etc. These contractors shall bring very limited number of skilled Migrant workers for some of more specialized tasks; and
iii) Community workers (or volunteers particularly for EAP).

23. **Influx** of migrant labor will be low as these works require only few e.g. 30-40 but very skilled labor. Also, these workers will mostly operate from labor camps within the dam premises and hence there would be minimal interface with communities and therefore significantly lower SEAH/GBV risks. Labor related risk would include:

- Safety issues while at work like injuries/accidents/ fatalities leading to even death, while at work; Occupational health and safety risks due to exposure of workers to unsafe conditions while working at heights, working using lifts, handling of equipment and machinery, exposure to air and noise pollution etc. will be addressed through OHS guidelines.
- Short terms effects due to exposure to dust and noise levels, while at work
- Long term effects on life due to exposure to chemical /hazardous wastes
- Inadequate accommodation facilities at work force camps, including inadequate sanitation and health facilities
- Non-payment of wages
- Discrimination in Employment (e.g. abrupt termination of the employment, working conditions, wages or benefits etc.)
- Sexual harassment at work
- Absence or inadequate or inaccessible emergency response system for rescue of labour/workforce in situations of natural calamities.
- Health risks of labour relating to HIV/AIDS and other sexually transmitted diseases

In addition, other risks that would be applicable for all types of workers would be as follows:

- Unclear terms and conditions of employment
- Discrimination and denial of equal opportunity in hiring and promotions/incentives/training opportunities
- Denial for workersô rights to form workerôs organizations, etc.
- Absence of a grievance mechanism for labour to seek redressal of their grievances/issues
- No impacts are envisaged on cultural heritage as works shall not be undertaken in their vicinity or result in any impact.

24. **E&S risks relating to ESS 3 – Resource Efficiency and Pollution Prevention and Management:** Various natural resources such as water, sand, gravels, earth and chemical compounds may be required for different dam rehabilitation activities and access road constructions. Optimal use of these resources will be essential with the use of best construction practices and reuse of construction/demolition waste. Commitment for optimal use of resources and adoption of guidelines for optimal use of required resources following the principle 3R (recycle, recovery, reuse) principle of pollution prevention is to be ensured. In addition to resource efficiency measures, use of technicality and financially feasible and cost-effective options will be promoted as part of mitigation measures to avoid or minimize project related air emissions, and effective management of solid and hazardous waste. Dams have land areas and large water storages. Sustainable use of dam resources shall be explored for renewable energy generation and income generation activities. Thus, potential of solar

power generation shall be assessed, and efforts shall be made to implement such sub projects which will also contribute, indirectly, in reduction of GHG emissions. In addition to ESF, the World Bank Group Environmental Health & Safety Guidelines will also be taken care in the project through ESMP preparations ï Standard ESMP, which will be updated by respective IAs depending on project specific activities - for low to moderate and specific ESIA and ESMP for each substantial to High sub projects. The project will ensure cleaner production principles for the proposed activities. Such a Plan document shall be prepared and included as part of the ESDD/ESIA reports. These shall be prepared by the respective IA with support of ESIA consultants; disclosed by the IA on its website and other accessible location. ESMP will be developed prior to issuance of the bids and will also be included in the bid documents of each sub projects. Such requirement is stated as a requirement in the ESCP ï which will be signed by all IAs participating in the project

25. **E&S risks relating to ESS 4 – Community Health and Safety:** Dam safety is intrinsic part of the project. Natural hazards, such as earthquake, cyclones / landslides/debris flow, etc. do exist in many sub project areas. Potential risk of accident and incidence do exist during rehabilitation/construction and operation stages of the project as in today. Dam safety assessments will be undertaken conforming to ESS4 by the DSRP and as per the Guidelines for Safety Inspection of Dams (CWC, January 2018) early in the project preparation as basis for identifying / assessing remedial measures. While doing so, Good Practice Note (GPN) on Dams Safety (The World Bank,2020) may also be referred. Assessments will also bear on and will include individual dam inspection by State specific Dam Safety Review Panels by partner agencies early in the project preparation as basis for identifying / assessing remedial measures both in structural and non-structural aspects, and preparing the design / construction plan of dam rehabilitation and safety improvement works as well as dam safety plans. As these dam safety related reports are highly technical ones involving safety and security related information, they will be prepared as separate documents from ESDD/ESIAs. Whilst dams are designed against extreme natural hazards, such as Probable Maximum Flood, Maximum Credible Earthquake, etc., possibility of unforeseeable extreme events occurrence beyond design standards cannot be ruled out. The resilience enhancement measures including consideration of likely effect of climate changes for dam rehabilitation /enhancement works and structural / operational modifications can minimize such probability to a larger extent as elaborated in the aforementioned GPN.

26. Though not envisaged as part of the current known interventions, the larger construction activity such as additional spillway construction may have risk to ecosystem services which may have results in adverse health and safety risk to depended community. ESIAs for each such sub project or dam shall be made including effect of climate change and mitigation measures; to eliminate or minimize such impacts and a comprehensive ESMP shall be prepared. Various measures for protection of occupational health and safety are defined under DRIP I. Emphasis will be given in designation of environment and occupational health and safety officers at sub project and strengthening their capacity through workshops and training programmes and exposure visits so that all personnel at worksite (including all managers) have clearly understood their responsibilities and ensure OHS plans are properly implemented. It will also be ensured that dam safety assessments as well as design and construction supervision of rehabilitation / safety enhancement works should be undertaken by qualified experts. A set of required investigation, survey and analyses should be covered for proper safety assessment and design of remedial works. The risk assessment should also be undertaken in a commensurate manner with potential risk of dams (failure likelihood of exiting dams and downstream hazard/consequence in case of failure and/or uncontrolled release of water) and complexity of remedial works. Such assessments should be carried out covering hydrological, geological/geo-technical, seismic, and other operational risks in a comprehensive manner. The results of dam safety /risk assessment as well as adequacy of

proposed remedial works and quality of construction works should be periodically reviewed by independent Dam Safety Review Panels to be established by the participating States and other Implementing agencies. The DSRP TORs and qualification of members have been reviewed and considered adequate (to be done for appraisal). Also, dam safety plans should be prepared including: (i) plan for construction supervision and quality assurance, (ii) instrumentation plan (iii) operation and maintenance plan (iv) emergency preparedness plan. The dam sites will ensure security and safety personnel. The plan for construction supervision and quality assurance, preliminary operation & maintenance plan, and framework plan for emergency preparedness along with the estimated budget have been prepared in a satisfactory manner. The instrumentation plan is to be incorporated into the detailed design and bidding documents. The upgraded O&M plans and EPP will be completed during the early phase of project implementation period. Labour involvement for works and their stay at site is for a period ranging from some months to about 3 years. Labour intensive work always involves risks of accidents such as working at heights, working on upstream body of dam, underground activities, etc. The project is likely to involve direct labor, contract labor and community workers. Labor Management Procedure (LMP) and Community Health Management Plan shall be prepared as part of ESMP and will be included for all sub projects. Template (ToC) of such Plan document shall be prepared and included as part of the ESDD/ESIA reports. These shall be prepared by the respective IA with support of ESIA consultants. This document shall also be available in the office of engineer in charge of the respective dam. These documents shall be disclosed/disseminated through other appropriate means like various Project meetings, workshops etc. ESMP will be developed prior to issuance of the bids and will also be included in the bid documents of each sub projects. Such requirement will be stated as a requirement in the ESCP ï that shall be signed by all IAs participating in the project. Commitment shall be taken from borrowers as part of ESCP for protection of health and safety of workers/community, traffic/road safety, safe management of hazardous materials, allocation of adequate resources for implementation of proposed protection measures and all-time emergency preparedness and response.

27. **E&S risks relating to ESS 5 – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**: The proposed interventions are limited to the existing dam compounds and will take place on the existing dam structure and/or within its premises and therefore none of the proposed activities/interventions, involve acquisition of private land and/or private assets; in no way cause restriction on access to land or use of resources by local communities; and there is no economic displacement. There might be temporary impacts such as disruption to vehicular movement during construction and might result in temporary inconvenience, but do not involve disruption or loss of access to assets by communities. The activities related to solar power generation will be limited to dam compound only with land in government possession. However, rehabilitation proposals involving major construction activities e.g. Additional Spillway creation or permanent structures for tourism, etc., are likely to come up during project implementation, i.e. in as yet un-identified subprojects. Such activities, if taken up, might result in the following adverse impacts:

Pre-construction stage

- Loss of fertile agricultural and/or residential land;
- loss of structures used for residential, commercial and other purposes and associated loss of livelihood i.e., loss of livelihood due to impacts on sources of earning;
- impacts on owners/ titleholders, tenants, cultivators, non-titleholders (encroachers, squatters)
- Loss of other properties and assets such as boundary walls, ponds etc.;
- Impacts on common property resources such as religious shrines/structures, school building, health centres, water resources (hand pumps), grazing lands, etc.

- Temporary or permanent disruption to livelihood, particularly to petty shop owners, squatters and encroachers;

Construction stage

- Temporary ï short duration or prolonged disruption to services such as water supply, power
- Disruption to traffic movement leading to time delays;
- differential impacts on vulnerable and disadvantaged population such as constraining their access, movement;
- Dust emissions during construction leading to impacts on crops and trees resulting in lower yield or growth;

28. **E&S risks relating to ESS 6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources:** Most of dams has rich biodiversity around it. Some of these dams may be located close to reserve forest areas or protected areas. Construction of larger structures like spillway may lead to cutting of larger number of fully-grown trees and/or diversion of forest area and changes in water flow may have impacts on aquatic ecosystems. Meaning it may have high risk to ecosystem service and needs to be adequately addressed through appropriate avoidance, minimization or mitigation and compensatory measures.

29. The temporary bio-diversity related risks can be mitigated using construction stage Bio-diversity Management guidelines. All the risks and impacts relevant to ESS6 will be assessed as part of the ESDD/ ESIA and as per the procedures laid down in the ESMF of the Project. The mitigation hierarchy will be applied to manage E&S risks and impacts and ESMPs shall be prepared. If required, a separate Biodiversity conservation and Management Plan (BCMP) will be prepared. Template for such a Plan document shall be prepared and included as part of the ESDD/ESIA reports. These shall be prepared by the respective IA with support of ESIA consultants; disclosed by the IA on its website and other accessible locations. Preparation of such a document prior to commencement of construction shall be stated as a requirement in the ESCP ï that shall be signed by all IAs participating in the project.

30. **E&S risks relating to ESS 7 - Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities:** Under this ESS, the term ñIndigenous Peoples/Sub- Saharan African Historically Underserved Traditional Local Communitiesò (or Scheduled Tribes) refers exclusively to a distinct social and cultural group possessing the following characteristics in varying degrees:

    a) Self-identification as members of a distinct indigenous social and cultural group and recognition of this identity by others; and
    b) Collective attachment to geographically distinct habitats, ancestral territories, or areas of seasonal use or occupation, as well as to the natural resources in these areas; and
    c) Customary cultural, economic, social, or political institutions that are distinct or separate from those of the mainstream society or culture; and
    d) A distinct language or dialect, often different from the official language or languages of the country or region in which they reside.

31. The project is likely to cover many dams across many states in the country. Of these states, many have significant amount of tribal population such as Odisha, Chhattisgarh, Madhya Pradesh, Meghalaya, West Bengal, etc. Many of these states also have areas that are declared as Schedule V and VI areas as defined by the Constitution.

32. In terms of positive impacts, even though some of the dams are located in Schedule V areas and also many others are likely to be having communities in the vicinity that may be

characterized as **Indigenous** persons[10]. The proposed structural rehabilitation works are being carried out on the existing dam structure and within dam premises and not leading to any new infrastructure. The non-structural interventions such as early flood warning system and EAP, would be taken up in midst of tribal population groups. The tribal households will be indirectly and positively benefited by the dam safety interventions proposed for each sub-project Dam as these will help improve the overall safety of the dams. In addition, under Component 3 ï Additional Revenue Generation, Tribal households may also benefit from the work/income generation opportunities relating to tourism works, water recreation activities, motor boats, fishing, solar power/floating solar etc.

33. In terms of potential adverse impacts, the proposed structural interventions under Component 1of the project largely are rehabilitation works that are being carried out on the dam structure or within the dam premises and on land available with the dam authorities. As per the details available so far, none of the proposed activities/interventions, involve acquisition of private land and/or private assets. These activities in no way cause restriction on access to land or use of resources by local communities and there is no economic displacement envisaged due to the sub-project. However, there are many dams that would be taken up under the projectï locations of which and activities proposed therein, are not known at present and will be known only during project implementation. Besides, these dams too would have tourism, water recreation activities proposed and might result in adverse impacts on tribal households and in a few cases, possibly involve adverse impacts on land and natural resources, cause relocation, and/or have significant impacts on their cultural heritage, resulting in the obtain Free Prior and Informed Consent (FPIC). Non-structural interventions such as preparation and implementation of EAP and early flood warning systems will involve consultation with variety of stakeholders including tribal groups, living in the vicinity of the dam and would need to be consulted and informed in culturally appropriate approach ï language, techniques that are familiar to them.

34. **E&S risks relating to ESS 8 – Cultural Heritage:** The project is rehabilitating existing dams thus envisaging low risks and impacts to cultural heritage at this stage. However, possibility of chance find will be included for construction activities. Appropriate provision and measures shall be made under Environment and Social Management Plan and contractorôs contract to deal with chance find and its recovery and preservation. If any such cultural heritage is identified, a cultural heritage management plan shall be developed.

3.3 Institutional Assessment

35. As part of project preparation, institutional assessment was carried out - aspects examined included: the current institutional structure to deal with rehabilitation of dams and associated E&S issues; current levels and modes of engagement with communities living in the vicinity/downstream on dam related developments, water discharge, flood warning, particularly in light of proposed activities relating to additional revenue generation (e.g. tourism, floating solar, water recreation activities); availability and access to grievance redressal mechanisms for communities to seek redressal, etc. ESDD will present the institutional assessment outcome for each sub project.

36. Assessment indicated that CWC and some of the states (Kerala, Karnataka, Tamil Nadu, Odisha, Madhya Pradesh, Uttarakhand) that participated in DRIP 1 project and hence are familiar with the World Bankôs environmental and social safeguard policies and related requirements. However, within Central Water Commission, (CWC), and IAs, capacity building towards management of E&S issues need to be continuously improved during

[10] As per the characteristics outlined in ESS 7

implementation. Also, for other agencies similar kind of follow up is would be required. The institutional assessments that is undertaken as part of ESDDs for other agencies which are in very advanced stage could not be completed due to unexpected lock down due to global COVID-19 pandemic, and CWC is taking lead up to Appraisal stage to carry out ESDD for all IAs to meet the preparedness criteria.

37. During project implementation stage, each IA will carry out their activity individually. No in-house staff personnel with requisite skills or experience are available. Presently, Chief Engineer at SPMU and Executive Engineer at dam level look after these aspects. Presently, no formal system is established for dealing with external complaint or a formal GRM. There is no internal complaint committee as per Sexual Harassment Act either at dam level or SPMU level, however, such complaints can be made to the head of the department. However, in case of CWC, an Engineering and Management Consultant firm contracted under DRIP 1 continues to provide support on E&S issues. Preparation and implementation of various plans given the low capacity of implementing agencies remains a challenge and therefore Contracting/hiring of E&S staff at each IA; support on E&S issues by the EMC and continuous capacity building activities would be needed. Such actions will need to be stated as key E&S commitments in the ESCP that will be signed by each IA. At the time of Appraisal, all 17 IAs have designated a Nodal E&S officer.

4. ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

38. Environmental and Social Management Framework (ESMF) is a tool for use by a project proponent to identify and address the potential environmental and social concerns or impacts of a project across all stages from planning stage to its implementation and post-implementation operations. Keeping this in view, the present ESMF has been developed for use by all IAs while undertaking rehabilitation and strengthening works of dams. A step-by-step methodology has been provided that can be followed along with engineering and institutional interventions required for the sub-project activities. In development of the ESMF, a standard list of activities& E&S Risks and impacts, identified from the Project Screening Templates of the 10 dams in Rajasthan and Manipur were developed[11] which would be generally applicable to all sub-projects under the DRIP. Under the ESF, ESS1 is the overarching ESS, which shall be used to determine the relevance of each of the ESS 2-8 and ESS 10, based on the above identified standard list of activities.

4.1 Application of ESMF

39. ESMF will be applied to the overall project through a two-stage process as described below

- Stage I: Undertaking Environmental and Social Due Diligence Assessment of all sub-project Dams using E&S scoping and screening checklists to identify E&S risks and impacts and determine risk category of the overall project (L/M/S/H)

- Stage II: Based on risk category, update Standard ESMP (See Appendix 1) depending on sub project specific activities for L/M risk sub-projects or conduct detailed ESIA for substantial or high risk projects. i.e.,
  - if risk category is L or M prepare ESMP including mitigation plans for the relevant ESS applicable to the dam by duly updating the Standard ESMP.
  - if risk category is S or H[12], conduct detailed ESIA as per agreed Terms of Reference (TORs) and prepare ESMP including mitigation instruments as per relevant ESS applicable to the dam.

ESMF application by stage is described below. Application of ESMF to Sub-project life cycle is presented in Figure 4.1

[11]Outcomes of ESDD of 10 dams is placed at Annexure 4.

[12] Examples where sub projects may get classified as Substantial or High are ï interventions include additional spillway construction requiring land acquisition, , interventions triggering a High/substantial GBV risk, consisting of factors outside project control impacting ES performance and outcomes such as complex existing legacy issues (R&R, interim/ final directions issued in interstate disputes) which may trigger High/substantial risks as per ESS, implementation and enforcement arrangements are weak, interventions leading to adverse impacts on IPs, natural habitats etc.

Figure 4.1: Application of ESMF to sub-project cycle (preparation, implementation and monitoring)

ESMF includes Frameworks to meet the requirements for relevant ESS ï GBV Risk Mitigation Framework (ESS1), Occupational Health and Safety (ESS2), Resource Management Plan (ESS3), (ESS4), Resettlement Policy Framework (ESS5), Bio-Diversity Conservation and Management Plan (ESS6), Tribal Development framework (ESS7). (Stakeholder Engagement Framework (ESS10) is prepared separately).
ESMP includes Resettlement Action Plan, Tribal Development Plan, Stakeholder Engagement Plan, Labor Management Procedure, Community Health Safety Management Plan, Bio Diversity Conservation and Management Plan, Cultural Heritage Management Plan, Construction Debris and Solid Waste Management Plan, Pollution Prevention and Environmental Quality Management Plan

4.2 Stage I: Environmental and Social Due Diligence Assessment

40. The ESDD assessment would be undertaken for each dam sub-project comprising all structural, non-structural interventions and other tourism/water recreation/floating solar interventions.

41. **Approach to ESDD assessment:** ESDD would be prepared by: study of sub-project information, proposed interventions, their magnitude and locations; assessing the relevance and applicability of laws, regulations and procedures for assessment including WB ESS requirements , development and implementation plans of the projects; understanding baseline environment and social settings, institutional assessment to identify existing capacities & relevant gaps to manage E&S risks and impacts; conducting preliminary stakeholder consultations to help identify potential stakeholders and potential concerns and issues;carrying out activity wise environment and social screening and identify risks and impacts and to classify the sub-project based on risk level (low, moderate or substantial and high) and finally, presenting conclusion on risk category, need for the detailed ESIA and recommendations for ESMP.

42. **ESDD Process:** The ESDD would be undertaken using project screening templates given at Annexure 3to identify nature and extent of E&S risks and impacts for different types of proposed interventions. First three reports from each IA will be reviewed and approved by WB to verify for completeness, compliance and consistency. In addition, for other Low to Moderate risk sub-projects, Bank will review a selection of sub-projects, through desk review /site visits and provide suggestions and guidance for improvements, if required. In the case of substantial and high-risk categories of rehabilitation sub-projects, WB will review and approve all reports.

43. **Scoping exercise** considers the proposed interventions at each dam site as provided in the Project Screening Template[13] (Format SF-1). Applicable interventions are further classified based on the location i.e. within dam area or outside the dam area. Each activity is reviewed for the applicability under-sub project, location of applicable activity as within dam area or beyond dam area and likely risks and impacts. The SF-1 format will be used to scope out or ascertain the types of E&S risks for each of the interventions e.g. Risk/Impact Water Quality, Fisheries, Conservation area, Protected Area, Ecological, Occupational Health, Physical Environment, Cultural, Tribal presence, impact on private land/assets/encroachers/squatters, labor, migrant labor and GBV risks ï each of these corresponding to the ESS 2-8. As explained earlier, ESS1 is the overarching ESS and shall govern the applicability of ESS 2-8 and ESS 10, for each of the interventions of the sub project.

44. The second format (SF-2) is used to assess the extent of risk/impact intensity for each of the identified E&S risk and will be used to categorize the risk level as Low/Moderate/Substantial/High.

45. Finally, using a third E&S risk summary format (SF-3), the risk categories for all different types of E&S risk and impacts would be summarized and the highest of the risk categories would be assigned as overall risk category for the given Dam sub-project. Based on the above findings, an ñE/S Due Diligenceò report for each sub-project would be prepared. The ESDD report will recommend:

i) Risk category of the Dam sub-project ï whether it is Low/Moderate/Substantial/High

[13] Screening templates (SF1, SF2 and SF3) placed at Annexure 3

ii) Types of instruments that need to be prepared as part of the ESMP along with the responsibilities and timelines[14]

4.3 Stage II: Preparation of ESMP

46. At this stage, for dams that are identified into two groups as - (i) Low to Moderate Risk or(ii) Substantial to High risk. This is done based on risk analysis criteria given under Format SF-2 and activity specific risk summary given under SF-3. The sub project will be classified as low to moderate risk project only when all the identified risks are between low to moderate.In case even one of the 11 parameters in the E&S screening exercises at ESDD stage, results in a rating of either Substantial or High, then the E&S risk category of the sub-project would be categorized as Substantial or High. Following which ESIA would be carried out as per the given Terms of Reference that have been approved by World Bank.

47. Based on the risk classification of subproject further action shall be taken as below:

i. **Low to Moderate risk,** a standard ESMP shall be developed wherein Specific plans e.g. OHS, SEP or LMP will be included. This standard ESMP will be updated by IA depending on project specific activities. The standard ESMP shall comprise set of actions that need to be completed by Implementing Agency and by the contractor. The contractor specific actions shall be annexed in the bid document. All such standard ESMP plans shall be prepared by SPMU through their E & S specialists available in the State PMU.

ii. **Substantial to High Risk dams:** For all such sub-projects a detailed ESIA shall be conducted through an independent ESIA agency in accordance with the Terms of Reference (ToR)[15] prepared and agreed with CPMU and SPMUs. The ToRs require to: define projectôs ôstudy areaô or project influence area and conduct surveys on existing environment & socio-economic profile/setting from authentic secondary sources and primary surveys; review of Environmental & Social Legal requirements; carry out analysis of impacts and management measures (including cumulative such as water assessment, ecological flows, climate change, disasters etc, as applicable); provide environmental inputs to engineering feasibility studies; conduct Social Impact Assessment including qualitative and quantitative surveys to identify potential adverse impacts on land, assets, encroachments, community assets; impacts on disadvantaged and vulnerable; impacts on tribals; develop mitigation plans in accordance with the entitlement policy and assistance package: identify gender concerns/gaps; identify types of project workers/labor and associated risks; possibility of migrant labor leading to GBV[16] risks; undertake stakeholder assessment & consultations, providing modes for citizen engagement and GRM[17] (including for anonymous, vulnerable and disadvantaged).

48. Based on the ESIA findings, the ESMP will be developed and depending upon the relevance of ESS 2-8, relevant plans such as Resettlement Action Plan (RAP)[18], Tribal Development Plan (TDP)[19], Biodiversity Management Plan, Cultural Heritage Management Plan or Procedures[20] etc. will be prepared and included within ESMP. For all projects, Contractor would be required to prepare Contractor-ESMP (C-ESMP that includes camp management plan, labor influx management plan, OHS measures etc.). ThisESMP shall be ready before the sub project bids are issued and relevant plans would be included in the bid document.

[14]Standard ESMP placed at Annexure 5 (Appendix 1)
[15]ToR for hiring agency for conducting ESIA studies placed at Annexure 6
[16] GBV/SEAH action plan placed at Annexure 7
[17] Ref SEF
[18]Template placed at Annexure 9
[19] TDF placed at Annexure 12
[20]ToC for Bio-diversity management placed at Annexure 11

49. The preparation of E/S assessment and management instruments, proportionate to the risks, as specified herein this ESMF is stated as a requirement in the Environment and Social Commitment Plan. All such ESMPs and other relevant Plans will be reviewed by CPMU and shared with the Bank for approval before the same are included in the respective bid documents. First three reports from each IA will be approved by WB to verify for completeness, compliance and consistency. In addition, for other Low to Moderate risk sub-projects, Bank will review a selection of sub-projects, through desk review /site visits and provide suggestions and guidance for improvements, if required. In the case of substantial and high-risk categories of rehabilitation sub-projects, WB will review and approve all reports. In case of sub-projects with Substantial or High-risk categorization, all ESIAs and subsequent ESMPs shall be reviewed by WB. Implementation of all such ESMPs will be monitored by SPMU and progress status will be shared with the CPMU and Bank for information on quarterly basis.

50. Application of ESMF to sub-projects under Component3aims to explore alternative sources for generating revenue streams such as tourism and water recreational activities, fisheries and other innovative schemes such as floating solar panels. The activities are being considered as a way to help meet maintenance/operational costs of the dams and a small number of such activities at identified sub projects might be piloted under DRIP II. The dams on which such alternative revenue generating sources could be piloted have not yet been selected. The selection of dams will be based on in-depth studies to determine potential, feasibility, social and environmental impacts, etc. While it is not expected that any of these activities will lead to Substantial or High risk (given the nature of the activity and relatively small amount of money that can be allocated for them),if any tourism sub-projects are proposed, they shall undergo E&S screening using the given checklists. Such an assessment would be undertaken by the contracted ESIA agency/PIU. The findings shall be reviewed by CPMU and shared with the Bank for its endorsement on the identified risks before taking up such activities. Those identified as Substantial or High risk through the screening assessment shall be required to carry out detailed ESIA in accordance with the ToRs[21]and approval from the World Bank.

51. Implementation process of application of ESMF in sub projects: ESDD studies will be carried out for 100% of all sub projects by IAs through in-house team/professional consultants. The SPMU will review the ESDD report and finalizes the recommendation on risk classification. Following this, SPMU will forward these reports to CPMU for review. Once the CPMU reviews, it will send the first ESDD report from each IA to World Bank for reviewing completeness, correctness and compliance and approve. In case the risk classification by SPMU is recommended as S or H, 100% of such sub projects would be forwarded to CPMU and World Bank for approval. Similarly, 100% of the pilot works proposed, i.e., tourism, floating solar etc. for augmenting revenue sources will go through ESDD process, SPMU review, CPMU review and World Bank review. In case of sub-projects with Substantial or High-risk categorization, all ESIAs and subsequent ESMPs shall be reviewed by WB. Both CPMU and World Bank will seek additional clarifications if needed and approve the risk classification.

4.4 Mitigation instruments to meet requirements of each ESS

E&S risks and impacts identified in Chapter 3 shall be addressed through following mitigation plans

[21]Template placed at Annexure 6

ESS	Type of plan/instrument	Brief description of content	Annexure with indicative TOC/guideline
1	ESMP	Includes provisions for addressing risks relating environmental and social aspects in each sub project or dam. This will be a standard ESMP for sub projects identified as low to moderate risk (as per ESDD). High risk sub projects will undergo Detailed ESIA and an ESMP. This will also include recommendations as per SEA or SH/GBV and physically challenged	5
2	Labor Management Procedure	Lay down and spell out the requirements relating to: provision of terms and conditions of employment; promoting ofnon-discrimination and equal opportunity; workerôs organization etc. and finally a mechanism to redress grievancesmechanism to the direct and contracted workers.	14.6
3	(a) Construction Debris and Other waste management Plan (b) Pollution Prevention and Environmental quality management Plan	(a) Dam rehabilitation activities may generate various type of waste depending on nature of rehabilitation work involved such as debris and construction waste, empty paints containers, waste lubricants, electrical waste, and municipal waste from labour camps. Some of these wastes are bio-degradable, some are reusable/saleable, and some are non-biodegradable and non-reusable. Many of these wastes attract provision of law for its disposal and require controlled handling and disposal. Constructional Debris and Solid Waste Management Plan(CDSWMP) is aimed to fulfil the requirement of safe handling and controlled disposal of these wastes. (b) It follows the principal that any waste is a resource misplaced and if a resource is released to environment than it results in affecting the environmental quality depending on nature of waste released to environment viz air, solid or liquid. This Pollution Prevention and Environment Quality Management Plan (PPEQMP) framework is aimed to evolve guidelines which can result in conservation of resources and thus prevention of pollution	14.1 9
4	Community Health and Safety Plan	This plan will include framework for in relation project workers, and any risks of labor influx, such as communicable and non-communicable diseases. CoC for contractors in relation to workers at site will also be included.	8
5	Resettlement Action Plan	In accordance with SIA findings and RPF provisions, RAP will be prepared that enumerates nature and quantum of each type of impact and impacted persons by socio-economic category and entitlement measures, budget	10
6	Biodiversity Conservation and Management Plan (BCMP)	Biodiversity Conservation and Management Plan for the sub projects /Dam sites close to the conservation areas and suggest biodiversity conservation guidelines and Plan for all such dams. Where relevant, should also address ecological/environmental flows and ecosystem services	11
7	Tribal Development Plan	In accordance with ESDD/SIA findings and TDF, the TDP shall be prepared to include: applicable legal and institutional framework and baseline data; framework for meaningful consultation tailored to Indigenous Peoples/Tribals during project implementation; Measures for ensuring Indigenous Peoples/Tribals receive social and economic benefits that are culturally appropriate and gender sensitive and steps for implementing them; measures to avoid, minimize, mitigate, or compensate Indigenous Peoples/Tribals for any potential adverse impacts that were	12

ESS	Type of plan/instrument	Brief description of content	Annexure with indicative TOC/guideline
		identified in the social assessment, and steps for implementing them; the cost estimates, financing plan, schedule, and roles and responsibilities or implementing the Indigenous Peoples/Tribals Plan;	
8	Cultural Heritage Management Plan	A Cultural Heritage Management Guidelines and if required a Plan in sub projects if any such cultural aspects is likely to be affected from any of the dam scheme. This will include chance find procedures as well.	13
9	Stakeholder Engagement Plan GRM	Each ESMP will include a Project specific SEP for meaningful consultations and Accessible, functional and responsive GRM for stakeholders	14.5 (also refer to separate Stakeholder Engagement Framework

4.5 Addressing concerns of disadvantaged or vulnerable individuals or groups

52. Disadvantaged and Vulnerable households defined under the project include: ST, family/household headed by women/female, physically challenged, Below Poverty Line (BPL) and illiterate persons/households. This ESMF takes into consideration the risks and impacts on disadvantaged or vulnerable individuals or groups. It shall be ensured that

i) terms of reference for undertaking ESDD/ESIAs adequately cover such categories of potentially impacted persons;

ii) questionnaires and consultation checklists used for conducting census & socio-economic surveys and focus group discussions covered such groups.

iii) ESDDAs/ESIAs that are undertaken:

- cover such groups in the consultation meetings including the issues and concerns raised by these groups and document them effectively;
- identify additional measures that could be provided to address these groups
- present mechanisms and modes by which project will disseminate information to groups and consult with them to elicit their participation in the project interventions and which shall be included in the dam specific SEP.

Additionally, design interventions for universal access for physically challenged, where required will be explored during sub-project preparation.

5. STAKEHOLDER CONSULTATIONS AND DISCLOSURE

53. Project is required to engage with multiple and varied set of stakeholders for different activities under the project components. The Project E&S risk category is assessed as óHigh Risk. The Stakeholders risk is categorized as óLowô based on the nature and timing of activities - i) structural works will be taken up on and within the dam site soon, these works will be limited to the presence of a few workers on the dam site; ii) The non-structural measures such as EAP preparation which is a technical document related to disaster management of which engagement with communities will be a smaller component and as such will take at least one year to commence. Stakeholder Consultations mechanism shall describe how two-way communication between the Implementing Agency and the affected communities and stakeholders would be achieved throughout the project cycle. Consultations are used as a tool to inform and educate stakeholders about the proposed actions which are going to impact them both before and after the development decisions were made. The involvement of the various stakeholders ensure that the affected population and other stakeholders are informed, consulted and allowed to participate at various stages of project preparation and implementation.

54. Consistent with the requirements of ESS 10 on Stakeholder Engagement, this chapter describes the applicable legal and regulatory framework besides the requirements under WBôs ESS 10 and the process of consultations on ESMF. The consultation process undertaken for the first set of 10 dams is briefly presented in Annexure 19. The process of consultations is aimed at and mandates that Project components, including the E&S instruments are explained to stakeholders well, setting expectations on the overall project cycle.

5.1 National legal& Regulatory and WB ESS 10 requirements

55. Stakeholder Engagement is mandated within the existing institutional and regulatory framework of the National and State legal instruments as well as the ESS compliance requirements of Environmental and Social Framework (ESF), 2016 of the World Bank and is mentioned below:

- The Environmental Impact Assessment Notification (EIA), 2006 (including all amendments to date), notified by MoEF&CC, GoI
- The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013
- The Right to Information Act 2005
- Guidelines for Assessing and Managing Risks Associated with Dams (CWC, February 2019) and the Good Practice Note on Risk-Informed Dam Safety Management (World Bank, March 2020)
- ESS 10: Stakeholder Engagement and Information Disclosure, ESF 2016, World Bank

56. The Environmental Protection Laws mentioned above mandate that the Citizens have the right to environmental information as well as to participate in developing, adopting and implementing decisions related to environmental impacts. The provisions of environmental

law provide the assurances for public hearing during the process of project planning and also ensure the public discussion during implementations. Public representative bodies have an obligation to take into consideration citizensô comments and suggestions. The Land Acquisition Act, 2013 maintains the ethos and culture of public participation through social impact assessment. The Right to Information Act, 2005 provides for setting out the practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority. The ESS-10, Stakeholder engagement and information disclosure mandates stakeholder engagement is an inclusive process conducted throughout the project life cycle.

57. The World Bankôs Environmental and Social Framework (ESF)ôs Environmental and Social Standard (ESS) 10, ñStakeholder Engagement and Information Disclosureò, recognizes ñthe importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practiceò (World Bank, 2017: 97). Specifically, the requirements set out by ESS10 are the following:

- ñBorrowers will engage with stakeholders throughout the project life cycle, commencing such engagement as early as possible in the project development process and in a timeframe that enables meaningful consultations with stakeholders on project design. The nature, scope and frequency of stakeholder engagement will be proportionate to the nature and scale of the project and its potential risks and impacts.

- The Borrower will maintain and disclose as part of the environmental and social assessment, a documented record of stakeholder engagement, including a description of the stakeholders consulted, a summary of the feedback received and a brief explanation of how the feedback was taken into account, or the reasons why it was not.ò

5.2 Consultations on ESMF

58. In light of the COVID 19 pandemic induced restrictions[22] towards stakeholder consultations, consultations on draft ESMF were carried out in a limited manner in accordance with the guidance available[23]. The following approach was taken:

i. The Draft of the ESMF is disclosed on the project website, www.damsafety.in for stakeholder/beneficiary feedback.
ii. CWC sent the Draft ESMF by electronic email to officials such as Project Directors, Executive Engineers, SPMU staff of all participating states a week in advance, for their review, feedback and suggestions.
iii. CWC organized consultation workshop through video-conference during Apr 16-20, 2020. The participants included representatives from all the participating IAs including CWC. About 90 officials from CWC and Implementing agencies and 19 World Bank officials have participated in the consultations. List of participants and photo documentation is presented in Annexure 18. Summary of discussions is presented below:

[22]In light of the COVID pandemic, Government of India announced a country wide lockdown between March 25 toto May 3, 2020 that constrained holding of consultation meetings
[23] Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings, March 2020

Date	Category of stakeholder	Venue	Issues discussed	Agreements
April 16-20	Officials from all implementing agencies	Virtual	• The participants were informed about five key documents that they need to be aware from the outset i.e. the ESDD, ESMF, ESIA, ESCP and SEP. • It was informed that ESDDs will be undertaken for each Dam to ascertain the risks levels of the various activities along the various E&S parameters e.g. land, biodiversity, tribals, etc. This ESDD would then help arrive at a risk classification for each dam and ESS related requirements to mitigate those risks and impacts. • While in case of L to M risk sub-projects, the standard ESMP would be updated to suitably address the issues identified in the ESDD, in case of H/S risk projects ESIA shall be prepared followed by ESMP that covers each relevant standard. • Following this it was informed that every bid document required to incorporate ESMP before these bids are issued. • ESCP were informed that this document states higher order of E&S actions and measures that the IA commits to undertake and that each IA would sign upon at the time of project negotiations. • SEP ï nature of the document and examples of types of stakeholders likely in case of structural and non-structural measures were explained. The need for information disclosure and establishment or operationalizing of a GRM was emphasized • Other aspects such as corporate commitments relating to Gender, GBV and Citizen Engagement too were informed.	IAs want support from both CWC and Bank in helping them meet these requirements Wanted more clarity on what types of stakeholders since majority of the works were within the dam site. Explanation was given on the range of stakeholders
			• The need to strengthen E&S team at IAs in terms of designating nodal officers for E&S issues and also contracting of E&S professionals from the market was emphasized.	IAs agreed on the hiring from the market and agreed to advertise accordingly
			• Agencies sought support from both CPMU and WB on helping them with meeting the projectôs E&S requirements.	
			• IAs indicated that by the end of appraisal process they shall designate	IAs indicated that they shall complete

Date	Category of stakeholder	Venue	Issues discussed	Agreements
			nodal E&S officers. They also sought guidance on identifying E&S professionals.	designating a Nodal E&S officer for this purpose
			• Certain agencies such as TANGEDCO and Kerala WRD (who were part of DRIP 1) highlighted the high proportion of female employees in their organizations.	

5.3 Information Disclosure

59. The ESMF will be made available in a timely manner, in an accessible place and a form and language(s) understandable to stakeholders.

60. Final ESMF incorporating comments given by all participating states will be submitted to World Bank. Once approved by World Bank, it will be disclosed on www.damsafety.in website and the external website of the World Bank on its portal. Translated executive summary of the ESMF in vernacular language will also be made available.

61. Further information dissemination and disclosure shall be undertaken in accordance with Section 7 and 8 of the Project óStakeholder Engagement Frameworkô (SEF). The SEF recommends utilizing other opportunities for information disclosure and dissemination which may include - consultation platforms, working groups, workshops, seminars, conferences, focus groups etc. SEF further mandates that the Executive Summaries of ESMF and SEF shall be made available in local languages. In addition, SEF outlines - the stakeholders, legal and regulatory provisions, identification, approach to stakeholder engagement, approach to information disclosure, timelines for disclosure and feedback, implementation arrangements, GRM, Training requirements, budgets.

62. All the specific assessments and mitigation plans ï ESDD/ESIA, ESMP will be placed on the www.damsafety.in website as well as other accessible locations such as the office of office of Engineer in Charge at Dam site as well at SPMU for reference and record. These documents would be disclosed/disseminated through other appropriate means like various Project meetings, workshops etc. Each IA will translate these documents in their local language and will upload in their respective websites and also make available at other accessible locations.

6. IMPLEMENTATION ARRANGEMENTS

6.1 Institutional arrangements

63. Implementation arrangements, capacity building actions, monitoring & evaluation aspects are presented in this chapter.

Overall institutional arrangements for implementation of ESMF

64. The organizational structure for day-to-day project coordination and management of DRIP II consists of a Central Project Management Unit (CPMU) at the central level in CWC and one State level PMU for each of the implementing agencies. Institutions at national and state level along with roles are presented below:

National level:

65. National Level Steering Committee (NLSC): A Committee has been established for oversight on dam safety assurance and rehabilitation, and disaster management. The NLSC is headed by the Secretary Jal-Shakti and includes senior representatives from CWC and participating states. A separate Technical Committee (TC) is also in place providing technical input to NLSC, coordinate with implementing committees of respective state governments, and review progress of development projects.

66. Technical Committee (TC): This is to be headed by Member (D&R) CWC to deal with technical matters of Scheme with all Chief Engineers of SPMUs, Central Water Commission, Ministry of Power, IMD etc. will be its members

67. Central Water Commission: The overall responsibility for project oversight and coordination will rest with the DSO in CWC, which will act as the Central Project Management Unit (CPMU). The Chief Engineer of the DSO will be the Project Director (PD), and will be assisted by the Directors, staff of their respective directorates, individual consultants. CWC will designate nodal/coordinating officers (full-time engineering staff) to handle environmental and social areas. These Nodal/coordinating officers (full-time engineering staff) to handle environmental and social areas, will be at the level of Deputy Directors and will report to Project Director. Commensurate time will be given by these officials for successful implementation and monitoring of various E&S related activities. These designated officers are department engineers which are recruited at national level through competitive engineering services examination. The Nodal Officers will be supported by the E&S specialists drawn from the EMC team. Refer to **Annexure 17** for Terms of Reference for the Nodal E&S officers. As of Appraisal, Nodal officers for E&S activities have been designated by CWC as well as Implementing Agencies.

68. Engineering, Management and Consulting (EMC) firm: This firm will support CWC and provide it with a team of consultants for managerial, technical, fiduciary, environment and social, and M&E support.

State level:

69. Dam Safety Review Panel (DSRP): A DSRP will be constituted by each implementing agency.The dam safety requirements of the World Bankôs Environmental and Social Standard (ESS) 4 of the Environmental and Social Framework (ESF) are fully met by Dam Safety Review Panels (DSRPs), which will perform all responsibilities required under the ESF in accordance with a standardized/generic Terms of Reference (TOR) for DSRPs s is being finalized and will be jointly agreed with the World Bank for assessments of the dams.

70. SPMU: At the state level, SPMUs, will have overall responsibility for the coordination of the project activities at state level, both technically and qualitatively and will monitor the physical and financial progress including safeguards issues. Each IA will appoint a Project Director (PD) and Project Management Unit (PMU) attached to the Chief Engineer / Superintending Engineer in charge of the DSO. The PD and its team of government staff and consultants will have direct responsibility for the coordination and management of the project at the State level and for Central organizations (such as BBMB and DVC). All PMUs will be staffed with qualified government staff, supplemented with consultants so that the needed technical, safeguards, monitoring and evaluation (M&E), and fiduciary (procurement and financial management) capacity is available. The SPMUs will summarize the implementation of the project and submit reports to the CPMU in a format generated for a MIS. The SPMUs will coordinate the work with Chief Engineers of the WRDs and other owners of dams.

71. State Level Steering Committee(SLSC): To be headed by Principal Secretary of WRD or CMD of State EB to review physical and financial progress of Scheme, Chief Engineer SPMU as its Member Secretary, representative of State Finance Deptt., with all Chief Engineers of concerned DRIP dams as its members, representative of CPMU, CWC,

72. Each IA shall designate a Nodal Officer (full time in-house engineering staff with E&S expertise) to coordinate and supervise E&S activities. Each IA will designate nodal/coordinating officers (full-time engineering/social staff) to handle environmental and social areas. They shall be at the level of Executive Engineer/ Deputy Directors and shall provide commensurate time to comply E&S related activities. These designated officers are department engineers. Brief TORs for these Nodal E&S officers are placed at Annexure 17 in this ESMF. The SPMUs in case in-house expertise not available, will hire the qualified staffs on need basis to support management of E&S risks including Environmental Expert, Social Expert for ensuring compliance with the Bankôs ESF and ESSôs and ensure that these activities shall be implemented as per the procedures.

73. E&S specific Institutional arrangements with responsibilities for: a) national institutions ï CWC; b) State level institutions ï DSRP, SPMU of IA; c) external agencies ï EMC, Civil Works Contractor, RAP implementing agency, Third Party Agency for Annual Evaluation. Institutional Arrangement with Responsibilities are presented in below in **Table 6.1.**

TABLE 6.1 - Institutional Arrangements with responsibilities

Institution	Responsibilities
Central Water Commission – CPMU	**Overall responsibility for project implementation and coordination with all participating states**
	CWC will designate Nodal Officials to coordinate and supervise these activities and will take the assistance of Environmental Expert and Social Expert through EMC.
	Prepare Environment and Social Management Framework including Resettlement Policy Framework, Tribal Development Framework, Gender Base Violence Risk Mitigation Framework) and submit for World Bankôs review and approval prior to Disclosure
	Ensure that State WRD/ IA undertake Environment and Social Due Diligence (ESDD) using the E&S screening checklist to identify risk category (Low/Moderate/Substantial/High) of each sub-project including floating solar sub-projects, as per ESMF
	Ensure that all IAs, follow the Standard ESMP prepared by CPMU and suitably modified as per ESDD findings. For High risk sub projects SPMUs will undertake detailed ESIA as per enclosed TORs which will be reviewed by CPMU and WB
	Ensure E&S screening of all tourism related activities and share with the Bank for its endorsement on the identified risks, before taking up such activities.
	Review all ESMPs of the sub projects under dam activities and tourism and other activities under component -1 of high and substantial risks
	EMC will have Environmental and Social experts during project implementation
	Conduct Third Party Monitoring and Evaluation and its implementation of recommendations by SPMU
	Compile Annual report on SEP implementation prepared by Implementing Agencies for its portfolio of dams and disseminate at an ñAnnual Experience Sharing Workshopò event with participation of all Implementing Agencies
	Coordinate and ensure that Dam safety / risk assessments recommendations are implemented and duly coordinated with SPMU
	The dam sites will ensure security and safety personnel. All above recommendations of each dam be conveyed to the World Bank on annual basis
EMC	EMC agency will assist the PD and provide guidance and support in overall E&S management. This shall include **Preparation stage:** Conducting ESDDs to determine the environmental and social impacts, to help assess risk category and inclusion of standard ESMP in the bid documents; conducting review of detailed ESIA and ESMPs for Substantial and High-risk projects and of Tourism, Floating Solar, Water Recreation sub-projects and share with WB for review and approval prior to disclosure **Implementation stage:** Develop formats for regular supervision and monitoring on E&S issues and Undertake regular site visits/ inspections of the dam sites to monitor for compliance. Collate QPRs from different IAs and summarize and provide a QPR to World Bank for its information and set up a monitoring a reporting system on E&S issues; monitor grievance redressal **Capacity Building**: CPMU in consultation with SPMU will develop capacity development programme covering above aspects. While technical support will be drawn from World Bank, SPMU/CPMU E&S experts or professional independent agencies with expertise in respective subject matters will be engaged for training and Capacity Building. Provide orientation/sensitization and training to targeted groups within IAs on relevant topics (such as stakeholder mapping and engagement, Biodiversity guidelines, OHS, ESHS norms, Labor Management Procedures)
DSRP	Visit and assess all dams that shall be taken up under the project; and provide recommendations for remedial measures based on which detailed structural as well as non-structural rehabilitation plans are prepared for implementation under the Project.
	Dam safety assessments will be undertaken conforming to ESS4 by the DSRP and as per the Guidelines for Safety Inspection of Dams (CWC, January 2018) early in the project preparation as basis for identifying / assessing priority remedial measures. While doing so, Good Practice Note (GPN) on Dams Safety (The World Bank ,2020) may also be referred to.

Institution	Responsibilities
SPMU of IA	Have overall responsibility for the coordination of the project activities at state level, both technically and qualitatively and will monitor the physical and financial progress including safeguards issues.
	Follow the ESMP prepared by CPMU for low to moderate risk dams and ensure ESIA for Substantial and High-risk projects and also contract agencies for impact evaluation and RAP implementation (if and when required). Include ESMPs in the Standard Bid Documents for contractorôs compliance.
	Disclose ESMF and specifically RPF, TDF shall be translated in local language
	Approve and disclose ESMP including standard specific plans as applicable including translation of Executive Summaries of these plans in local language
	Establish a Grievance Redress Mechanism (GRM) to address Project workers workplace concerns
	Ensure that work cannot be awarded before ESMP has been included in the bid document and is signed off by environmental and social designated staff.
	Ensure incorporating relevant aspect of ESMP and ESCP requirements in bidding document for procurement of civil work contractor
	Include in bidding document that contractor will hire on need basis the Environmental Expert and Social Expert to ensure for effective ESHS implementation
	Facilitate preparation of Emergency Action Plan, disclosure workshop and implementation of EAP. For this purpose, liaise with District Administration, State Disaster Management Authority (SDMA), NDMA (National Disaster Management Authority), Police Department, Communities in the dam vicinity
Roles and Responsibilities of SPMU/IA	**Undertake** Environmental and Social Due Diligence of all the dams proposed under the project and identify risks category (Low/Moderate/Substantial/High) as per procedures laid out in this ESMF
	Refer the generic ESMP prepared by CPMU for low to moderate risk dams, to meet requirements of relevant ESS (Bio-diversity Plan, RAP/ARAP). **Prepare dam specific ESMP and Contract ESIA** agency to undertake ESIA for Substantial and High risk projects and also contract agencies for impact evaluation and RAP implementation (if and when required).
	Prepare Stakeholder Engagement Plans, in accordance with Stakeholder Engagement Framework for all sub-projects and undertake other measures as per LMP and GBV risk mitigation framework
	Ensure preparation and submission of submit C-ESMP prior to starting of civil work by Contractor and updation every six months
	Designate a special officer from Revenue Department to overlook land acquisition/resettlement aspects depending on the need,
	Hire a GBV officer if the sub project is classified as High on SEA/SH risk using the risks assessment tool while undertaking ESDD.
	Ensure compliance of any legal or statutory clearance/ permission / consent/ permit, if required for any sub project activity.
	Monitor the compliance with the agreed documents and ensure adequate reporting is made in progress reports about the compliance with the ESMF and ESMP
Civil Works Contractor	**Ensure inclusion and compliance** of ESMP (which will be called C-ESMP) in the bid document and is implemented in letter and spirit during implementation of rehabilitation activities. These C-ESMP should comprise, as applicable: Labor influx management Plan, Traffic Management and Road Safety Plan, Emergency Response Plan, Community Health and Safety Plan, Hazardous and Non-hazardous waste management plan, water use plan
	General Staffing as per ESMP provisions, but can be oriented to meet the requirement of a particular dam keeping in view proposed rehabilitation activities
	Implement Labor Management Plan including establishment and functioning of a GRM to receive and redress laborers workplace concerns
	Ensure actions relating to GBV as per GBV risk mitigation procedure
	Prepare and submit periodic progress reports on all E&S aspects provide in the ESMP that is included in the bid document/contract
	Ensure compliance with national and state levels in obtaining clearances and permits/licenses

Institution	Responsibilities
RAP implementation agency	Provide support to SPMU/IA in implementation of RAP. • Verification of PAPs. • Distribution of ID cards. • Preparation of micro plans. • Dissemination of information. • Assist to PAPs to avail R&R assistance and compensation. • Identify resettlement /vendor market sites. • Identify training needs and provide the same. • Facilitate in opening joint accounts. • Enable PAPs to identify alternate sites for house/shop • Assist PAPs to relocate. • Provide monthly progress reports on implementation
Third Party Agency (CPMU through EMC) for conducting Annual Evaluation	**Undertake** an Annual Evaluation of Environmental and Social Management Framework implementation by all IAs in a standard format to be finalised jointly by CPMU and World Bank team; Prepare report with recommendations for any corrective actions required by any stakeholders. The Evaluation Report to be shared with World Bank. Evaluation will includeâ 1. Compliance with ESIA and ESMPs requirements developed for the project 2. Compliance to different subject specific plans if required under ESMP; like Biodiversity Management Plan, Occupational Health and Safety Management Plan, Cultural Heritage Management Plan, Labor management plan, implementation status and compliance level. 3. Effectiveness of GRMs 4. Implementation of SEP 5. Compliance with WB ESS requirements

Reporting

74. Quarterly Progress report (QPR) will be prepared capturing details on E&S performance of the project. Details will include implementation status of the following
    1. Environmental and Social Commitment Plan (ESMP, GBV plan and LMP)
    2. Compliance to Environmental and Social statutory requirements
    3. Design modification or change in scope brought to Bank notice
    4. Assessment of changes and updating/addendum to ESIA/ESMP
    5. Site observations on Contractorâs performance on Environmental Social Health and Safety (ESHS) and other plans in ESMP. This will include details of accidents, incidence with analysis and corrective action taken. The incidence of fatal accident shall also be reported to WB as well as to concerned Govt authorities and CPMU.
    6. Summary of Stakeholder Engagement activities as stated in the SEF
    7. Summary of Grievances received and redressed for each scheme
    8. Status of Environmental and Social staffing within PMU (including PMC) and other implementation partners/agencies
    9. Capacity building /training activities undertaken for different project functionaries
    10. Corrective Actions and planned E&S activities for next quarter

    SPMU will share on Quarterly basis ESMP implementation status with CPMU, following which it shall review and forward the same to The World Bank.

Monitoring and Evaluation

Internal monitoring of E&S aspects in accordance with the ESMF and ESMPs comprising

relevant mitigation plans will be undertaken by the designated officials in SPMUs. It will be a regular on-going feature within the SPMU for all the dams in the respective project state. In addition, CWC ï CPMU will undertake an evaluation of the ESMF implementation all IAs and prepare and submit report and corrective actions to The World Bank.

Contractor's Quarterly Reports

75. Quarterly Progress report (QPR) prepared by contractors explaining the compliance status of the Project with the ESMP in their scope. Details will include status on:

1. Contractorôs ESMP implementation work plan and PMC reviewed summary of implementation progress
2. Implementation of Contractorôs ESMP (ESMP and related plans such as OHS Management Plan, Waste Management Plan, Workersô Camp Management Plan, Community Health and Safety Plan, Biodiversity management plan, Debris disposal Plan, Cultural Heritage Management Plan etc.)
3. Status of Compliance with E&S statutory requirements (including Consent to Operate (CTO) & Consent to Establish (CTE), quarry permits if applicable, labor licenses, insurance, etc.),
4. Status on actions indicated in the Labor Management Procedure
5. ESHS incidents &supervision. Report must include analysis of incidence and preventive action taken to avoid recurrence. Any fatal accident shall be reported to IA and CPMU immediately with cause of accident and corrective action taken. CPMU shall also report to WB on any fatalities. SPMU/CC shall ensure that ESHS incidents reporting conform to ESF framework of the bank.
6. Usage (no. required, distributed and ensure used) of Personal Protective Equipment (PPE) such as hard hats, safety shoes and safety vests by workers
7. Safety at work sites like providing traffic signage, barriers/delineator, management of traffic, drainage and pliable road surface etc.
8. Training conducted, and workers participation (submit reports with statistics of training and workerôs participation)
9. Functioning of GRM relating to labor aspects, including summary details of Workers grievances
10. Community grievances
11. Corrective Actions and planned E&S activities for next month

Capacity Building needs at CPMU and SPMUs

76. In view of new Environmental and Social Framework (ESF), awareness and capacity is required to be built for all implementing agencies and hence, capacity building will be an area of continued focus. In DRIP II, institutional strengthening is required at following levels:

Dam Sites Officials: Select officials at junior levels will be trained in

- understanding of baseline environmental and social conditions,
- understanding the ESDD of sub project activities employing the E&S checklists,
- analysis and assessment of project impacts on environmental and social components;
- segregating of significant impacts;
- identifying mitigation and enhancement measures and development of an environmental and social management plan.

SPMUs: All SPMUs shall have designated environment and social safeguard officials who

will be primarily responsible for the application of ESMF and monitor the compliance with ESF and ESSs.

- understanding of baseline environmental and social conditions,
- understanding the ESDD of sub project activities employing the E&S checklists,
- analysis and assessment of project impacts on environmental and social components;
- segregating of significant impacts;
- identifying mitigation and enhancement measures and development of an environmental and social management plan.
- stakeholder mapping and engagement;
- labor management procedures
- GBV risk mitigation requirements
- ESHS norms as per the bid documents/contract document
- emergency preparedness and response; community health and safety.

CPMU: Environment as well as Social Experts at CPMU, including the Project Director will be trained:

- on ESMF including ESF and ESSs and orientation on various ESS requirements e.g. RPF, ESMP, GBV action plan, LMP, TDP, Stakeholder engagement plan through customized training programs/ workshops and study tours.
- understanding the ESDD of sub project activities employing the E&S checklists,
- analysis and assessment of project impacts on environmental and social components;
- identifying mitigation and enhancement measures and development of an environmental and social management plan

Other Stakeholders

- Contractor, Support Consultants on topics such as Labor Management Procedures; OHS guidelines, emergency preparedness and response; community health and safety
- Communities on topics such as construction stage impacts, safety provisions, OHS guidelines
- Project workers on topics such as OHS guidelines, provisions relating to LMP, GBV Risk mitigation framework

CPMU in consultation with SPMU will develop capacity development programme covering above aspects. While technical support will be drawn from World Bank, SPMU/CPMU E&S experts or professional independent agencies with expertise in respective subject matters will be engaged for training and Capacity Building. Staff from SPMU and CPMU will be taken for exposure visits to showcase best practices of E&S safeguard practices.

6.2 Monitoring and evaluation

77. Monitoring and evaluation are meant to check whether the adverse environmental and social impacts identified are being adequately mitigated and that the proposed mitigation plan is resulting in achieving desired results. Monitoring and evaluation will be done at 2 levels viz., overall Project level monitoring of ESMF implementation and sub-project level monitoring of ESMP implementation. This, essentially, involves cross-checking the implementation of the ESMF and sub-project ESMPs as well as monitoring the environmental quality through suitable indicators in the specific sub-project locations during both the construction and operation stages. As Occupational Health and Safety (OHS) risk is envisaged across the

project interventions / dams, a separate OHS plan conforming to WB ESHS guidelines shall be developed for all such dams where occupational health and safety risk due to identified activities is high and a guidelines in the shape of doôs and donôts where such needs due to activities are low to moderate. A guidance framework for OHS is placed at Annex 8 for reference.

78. A Contractor will follow the dos and donôts given in the ESMP prepared by SPMU for Low and Moderate Risk categories dams proposed for rehabilitation. Compliance to statutory permit conditions, environmental quality, tree survivability norms as applicable shall be carried out as per predefined frequency. SPMU will ensure all elements indicated in the ESMPs be included in the contractorôs ESMP. Wherever, Environmental Standard (ES) related plans are to be developed, SPMU will ensure plans are developed and implemented.

Field supervision during sub - project implementation

79. The EMC hired by CWC will check compliance of sub-projects being implemented as part of the Project with the ESMF from the stage of inception to the stage of completion and commissioning. This would include compliance to Bankôs ESF and ESSs, ESMF (including RPF) provisions. SPMU shall carry out the necessary E&S activities using either in-house experts if available or hired for such purpose as individual or agencies. The terms of reference of the consultants will be finalized in consultation with the CPMU and Bank to undertake field supervision works.

Independent Annual Evaluation of ESMF implementation

80. An independent annual evaluation of the ESMF implementation will be commissioned by CPMU through EMC for all IAs. The ToRs of the Evaluation shall be prepared by CPMU in consultation with World Bank. It shall cover :

- Background of all sub-projects by the IA sub project ESDD/ESIA , statutory clearances, E&S requirements, categorization of projects.
- Need, objective, scope of independent evaluation exercise
- The methodology adopted, which includes field visits, inspection of construction sites, interaction with contractors, interaction with community, interaction with field engineers, environmental quality monitoring tests, etc.
- Evaluation findings - compliance with ESMF, ESMP implementation status based on desk review and site visit findings, onsite monitoring of environmental parameters, etc.
- Action taken report on field supervision consultant findings
- Identified good practices, identified residual issues and recommendations.
- Wrap-up consultations, dissemination workshops.

6.3 Stakeholder Engagement Framework

81. As part of Project implementation, it is required to engage with multiple and varied set of stakeholders for different activities under the Project components. As the list of Dams where Project is proposed to be implemented and the type, nature and profile of Stakeholders may vary at each dam site, this document, Stakeholder Engagement Framework (SEF) is prepared to provide the framework for preparation of Stakeholder Engagement Plans (SEPs) by each Implementing Agency. The SEF, outlines the general principles and collaborative strategy to

identify stakeholders for all components under the Project, identify appropriate modes of engagement and prepare plans for engagement and meaningful consultation throughout the project cycle while ensuring transparency. The goal of the SEF is to improve and facilitate decision making and create an atmosphere of understanding that actively involves project-affected people and other stakeholders in a timely manner and that these groups are provided sufficient opportunity to voice their opinions and concerns that may influence Project decisions.

82. The SEF outlines the process of identification of stakeholders duly considering all stakeholders relevant to the overall Project including its components and sub-components. The stakeholders include those currently associated with the Project and those who will be associated with the Project at a later stage during implementation. Stakeholders are identified and categorized into: i) project affected parties, ii) other interested parties and iii) disadvantaged and vulnerable groups. The framework provides for systematic consultation with all those inter-project beneficiaries, project affected people, women, vulnerable and poor members of the community and other stakeholders to understand their interests and influence over the project.

83. The framework provides for SEP to take into account the existing institutional and regulatory framework within the context of GoI and States legal instruments as well as the safeguard compliance requirements of Environmental and Social Framework (ESF), 2016 of the World Bank. SEF and SEP are dynamic documents and shall be updated at various stages of project life cycle. The SEF mandates preparations of SEPs to provide for dissemination of a variety of information, the mechanism for sharing to build relationships with stakeholders, gather information from stakeholders, consult with stakeholders, and disseminate Project information to stakeholders and the rationale for selecting an appropriate process, culturally appropriate mechanism, and the purpose for engaging with a stakeholder group.

84. The ñStakeholder Engagement Planò (SEP), prepared based on the Stakeholder Engagement Framework forms will form part of ESMP prepared for each sub-project, following the identification of stakeholders at the ESDD stage. During the preparation of SEP, more consultations would be undertaken with these stakeholders, with additional emphasis on the disadvantaged and vulnerable sections.

85. As per the SEF, E&S officer shall be responsible for implementation arrangements, at the SPMU for implementation, updation and record keeping of the stakeholder engagements as per the timeline and process mentioned in SEPs. Monitoring is an essential component for the success and timely implementation of the ongoing stakeholder engagement process to ensure that consultation and disclosure efforts are effective, and that stakeholders have been meaningfully consulted throughout the process. The ESMU team with assistance from NGOs/CBOs will ensure that messages are being conveyed clearly during consultations and debriefing sessions are conducted with the engagement team while in the field and help to assess outcomes and provide the opportunity to amend the process where necessary.

86. The SEF also discusses the process, method and timing of disclosures of different project related documents in entire project life cycle such as SEP and other documents like ESDD/ESIA, ESMF including RPF, ESMP etc. The project website www.damsafety.in will be used to disclose and disseminate various Project related ES as well as other technical and non-technical information periodically. The site shall provide details about the Grievance Redress Mechanism and contact details as well. CPMU, CWC will update and maintain the website regularly.

87. SEF indicates that SEPs shall include provisions for monthly summaries and internal reports on stakeholder engagement events, and grievance handling will be collated by PMUs. A number of Key Performance Indicators (KPIs) shall also be included in SEPs and shall be

monitored by the PMUs on a regular basis. Information on public engagement activities undertaken by the Project during the year shall be conveyed to the stakeholders through online publication of a SEP Implementation report annually. This shall be informed to all stakeholders including World Bank.

GRM details that are elaborated in the Stakeholder Engagement Framework are summarized in the next section.

6.4 Grievance Redressal Mechanism

88. A grievance redress mechanism shall be developed for potential use by external stakeholders to address the matters related to E&S issues. A grievance redress mechanism (GRM) to uphold the Projectôs social and environmental safeguards performance is designed to address concerns and complaints promptly and transparently with no impacts (cost, discrimination) for any issue raised by project affected people (PAPs). The grievance redress mechanisms described hereunder include both complaints and grievances (hereinafter referred to only as ógrievancesô). The GRM works within existing legal and cultural frameworks, providing an additional opportunity to resolve grievances at the local, project level. The key objectives of the GRM are:

- Record, categorize and prioritize the grievances;
- Settle the grievances (and inform those stakeholders of the solutions)
- Forward any unresolved cases to the relevant authority.

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

- Non-payment, or inadequate compensation and/or due R&R assistances; wrong measurement of parcel
- Construction related impacts ï cracks, damages to structures; dust damaging crops/trees
- Health and safety risks;
- Negative impacts on the environment;
- Negative impacts on communities, which may include, but not be limited to financial loss, physical harm and nuisance from construction or operational activities;
- Impacts arising from migrant labor on local communities

89. As the GRM works within existing legal and cultural frameworks, it is recognized that the GRM shall comprise project level and respective State level redress mechanisms. Most Project related grievances could be minor and site-specific. A Three tier GRM, i.e. at the sub-project level and SPMU level (State government level) and CPMU will be implemented. The establishment of GRM/GRC will be well publicized. Most grievances are to be received directly on site by the designated site representative of SPMU that shall endeavor to resolve them satisfactorily on site. The designated site representative shall inform the SPMU of these complaints and their outcomes, and of others not satisfactorily resolved that the SPMU GRM nodal officer should take over.

90. The nodal officer shall, on receipt of each complaint, note the date, time, name and contact details of the complainant, and the nature of the complaint in the Complaints Register. The nodal officer shall inform the complainant of when to expect a response. S/he shall then endeavor to address it to the best of his/her abilities, as per stipulated timelines.

91. The Complaints Register shall be maintained by the SPMU, who will log the: i) details and

nature of the complaint; ii) the complainant name and their contact details; iii) date; iv) corrective actions taken in response to the complaint. This information shall be shared with the World Bank. The project level process can only act within its appropriate level of authority and where appropriate, complaints shall be referred on to the relevant authority such as those indicated.

92. State Grievance Redress Committee (SGRC) shall be formed for high/substantial risk category projects at each implementing agency level comprising of competent members, who can effectively contribute in grievance redressal. In case at this level the dispute is also not resolved, the aggrieved person may take recourse to representation to CPMU followed to World Bank. If dispute is not resolved at this stage also, complainant is free to opt for any kind of legal recourse. An indicative list includes:

- State level Social Welfare Officer
- Executive Engineer, SPMU
- NGO representative
- PAP representative (one male and one female), and
- Representative from Revenue Department (for cases related to land)
- Details on contact information for grievances, inquiries, and further feedback shall be made available in the following format:

Description	Contact details
Agency	
To:	
Address:	
E-mail:	
Website:	
Telephone:	

93. Notifications regarding constitution of SGRC by SPMU shall be done at appropriate stage arises. Prior to commencement of construction, these details shall be notified by pasting notices at the prominent community locations in the downstream.

94. Should the nodal officer not be able to resolve the complaint to the satisfaction of the affected persons, he/she shall then refer the complaint directly to the DRIP - II Project Director (PD) at the Central level. Complaints referred to the PD will require him/her to take earnest action to resolve them in the earliest time possible. It would be desirable that the aggrieved party is informed of the course of action being taken. Reporting back to the complainant shall be undertaken within time specified for disposal of grievances. If the complaint is not resolved to the satisfaction of the aggrieved party, the complainant is free to take legal recourse. The decision of the judiciary will be binding on the Project, in case PAPs seek to exercise legal option for grievance redressal. Vulnerable, physically disadvantaged are provided with special focus in GRMs.

95. This framework encourages the Borrower/ implementation agency to take advantage of the existing GRMs, where available. Many States have been implementing State level, single sign-on electronic platforms[24] for receiving, forwarding the grievances to relevant agencies and addressing grievances. The Project GRM shall be made connected to such existing GRMs to benefit from the accessibility and knowledge about such systems by the stakeholders who

[24]Spandana in Andhra Pradesh, Sampark in Rajasthan etc.

desire to approach them. The framework shall take in to account the existing systemôs ability to identify duplicate complaints received through more than one channel; and lack of connectivity between the common platform and the project level GRM. The IAs shall strive to propose a GRM platform that is functioning, and accessible to beneficiaries through a variety of channels.

6.5 ESMF implementation budget

96. The budget for implementation of the ESMF primarily comprises of the following items:
- E&S specialists including GBV officer (where required) within the SPMUs
- E&S Specialists including GBV officer within the PMC supporting the CPMU
- Trainings/capacity building events and exposure visits/thematic studies that required to be conducted periodically,
- Preparation of safeguard instruments ï ESDD/ESIA, ESMP (including OHS, GBV, TDP, GRM, consultations), RAP for specific sub-projects, as applicable
- Awareness programmes for community stakeholders
- External agencies that might be contracted for monitoring the implementation of ESMP, RAP
- Third party independent evaluation

97. The ESMF budget does not include Resettlement costs of any nature. These costs shall be borne from the counterpart funding. The Project Director is the designated officer for approving the documents, with recommendations from E&S specialists.

98. The Project Component 4 on Project Management provides budget towards afore-mentioned items/activities covers: (i) CPMUôs coordination of E&S activities by the Implementing Agencies (IAs) of the project, supported by an Engineering and Management Consultant (EMC) (ii) hiring of E&S experts on a contractual basis at the IA level; (iii) setting up a monitoring and evaluation (M&E) system that will conducting of the Annual Evaluation exercise. CPMU and SPMUs will provide adequate budget for preparation and implementation of all safeguard instruments from the counterpart funding, besides for conducting any trainings, exposure visits and capacity building events. ESMF budget has been estimated about 0.5% (USD 2.5 million) of the total project costs and will be used by SPMU from the above components; however, the budget amount may vary based on the need of the project. Costs of ESMP implementation would be included within each dam ESMP and their break-up would depend on the nature of activities, extent of impacts and proposed mitigation measure. World Bankôs funding will be available for costs such as works, purchase of goods and services, where required. The implementation would be at SPMU/ State / IA level, so over and above if required for any exigency or developing a technical report counterpart funding will be arranged from budget kept under component for studies. It is reflected well in the Project Management component of the project as well, which states ï ñestablishment of a Quality Assurance and Quality Control systemò that is based on proportionate risk as defined in the Good Practice Note (GPN) / Technical Guidance Notes on Risk-Informed Dam Safety Management under the ESF. This component will also finance consultancies, as well as related material, office equipment and incremental operating costs. The project will provide investment and technical support for the establishment of a Management Information System (MIS) for the project.

6.6 Linkage to the ESCP

99. The Environmental and Social Commitment Plan (ESCP) sets out material measures and actions, any specific documents or plans, as well as the timing for each of these. The ESCP which will be part of legal agreement and will be signed by each participating states and

Implementing agencies (IAs) will requires to comply with the provisions of any other E&S documents required under the ESF and referred to in the ESCP, such as the Environmental and Social Impact Assessments (ESIAs), Environmental and Social Management Plans (ESMPs), Bio-diversity Management Plan, Stakeholder Engagement Plan, etc. The ESCP will be prepared considering the findings of the environmental and social assessment based on the ESMF, the Bankôs environmental and social due diligence and the results of engagement with stakeholders. It will clearly spell out the plans to be prepared with timeframe and responsibility. Adherence to the aforementioned ESMF processes and provisions will therefore be ensured through the ESCP.

6.7 Contingency Emergency Response Component

100. In case of emergency and if GOI through CWC requests the World Bank to activate the CERC, the current ESMF prepared by CWC will be updated within 90 days of activating the CERC and will include a positive list of eligible activities / expenditures at the time of activation. In addition, the ESCP will be accordingly amended to include the provision as per the updated ESMF within 90 days of CERC activation.

6.8 Updating of ESMF

101. Revision/Modification of the ESMF: This ESMF will be an ñup-to-dateò or a ñlive documentò enabling revision, when and where necessary. Unexpected situations and/or changes in the project or subcomponent design would therefore be assessed and appropriate management measures will be incorporated by updating the Framework to meet the requirements of countryôs legislations and Bank ESF. Such revisions will also cover and update any changes/modifications introduced in the legal/regulatory regime of the country/ state. Also, based on the experience of application and implementation of this framework, the provisions and procedures would be updated, as appropriate in consultation with the World Bank and the implementing agencies/departments. Finalized version of updated ESMF will be submitted to WB for its review and approval.

ANNEXURES

Annexure 1: Applicability Analysis of National Policy, Legal and Regulations; WB ESF Standards

Table A1.1: Applicability Analysis of National Policy, Legal and Regulations

S. No.	Legislation	Purpose	Applicability	Reason	Type of permit/specific action and stage of applicability	Administrative Authority
1	Environment Protection Act/Rules-1986	To protect and improve overall environment	Yes	Applicable to all activities in general	None	MoEF&CC
2	The Forest (Conservation) Act, 1980 and Amendments and The Forest (conservation) Rules 1981 and Amendments	To help conserve the country's forests. It strictly restricts and regulates the de-reservation of forests or use of forest land for non-forest purposes without the prior approval of the Government. To this end the Act lays down the pre-requisites for the diversion of forest land for non-forest purposes	Applicability will depend on specific to dam situation and activities proposed	Depends on requirement of diversion of forest land	None	State Forest Department, MoEF&CC
3	State Forest Acts	Conservation of forest and controlled felling of trees	-do-	Depends on Tree cutting requirement in proposed intervention	None	Forest Department
4	Coastal Regulation Zone (CRZ) notification 2011 and amendments till date	To regulate development activities within the 500 m of high tide line in coastal zone and 100 m of tidal influence rivers.	No	None of the sub-Projects are expected to be located in coastal area	None	SCZMA
5	Air (Prevention and Control of Pollution) Act, 1981, 1987	An Act to prevent and control Air pollution	Yes	Air pollution from proposed activities During construction stage	Consent to establish and operate to be obtained by contractor for operation of DG sets, of applicable	SPCB

					ratings and any other air pollution system like ready mix plant etc.	
6	Water Prevention and Control of Pollution) Act, 1974, 1988	An Act to prevent and control water pollution.	Yes	Water pollution from proposed activities during construction stage	Consent to establish and operate to be obtained by contractor for setting up construction camp/labour camp.	SPCB
7	Noise Pollution (Regulation and Control Act) 2000 and amendment till date	Ambient Noise Standards for different areas and zones	Yes	Noise emission from proposed activities during construction stage like operation of DG sets of applicable ratings	None	CPCB & SPCB
8	Hazardous & Other Waste (Management and Trans-boundary Movement) Rules, 2016	Protection to general public against improper handling, storage and disposal of hazardous waste. The rules prescribe the management requirement of hazardous wastes from its generation to final disposal.	Yes	Hazardous waste generation from proposed activities like generation of paints waste, used oil/waste oil	Authorisation for handling and disposal of hazardous wastes.	SPCB
9	Manufacture Storage, & imports of Hazardous Chemicals (MSIHC) Rules, 1989 as amended till date	Usage and storage of hazardous substances	Yes	If Painting is proposed which will require use of solvents/thinners which will fall under hazardous chemicals category or generation of waste oil is involved. otherwise not applicable	Arrange MSDS and store quantity of hazardous chemicals below threshold quantity	Chief Inspector of Factories
10	The Batteries (Management and Handling) Rules 2001	To regulate the disposal and recycling of lead acid batteries	No	Batteries are unlikely to be used for proposed activities	None	SPCB

11	Construction and Demolition Waste Management Rules, 2016	To manage the demolition and construction waste and prevent environmental degradation	Yes	Construction and demolition waste will be generated from proposed activities	Contractor needs to submit plan for reuse or safe disposal	Local bodies of the area
12	Solid Waste Management Rules, 2016	To manage solid waste or semi-solid domestic waste, sanitary waste	Yes	Solid Waste will be generated from proposed activities due to influx of labour	Contractor needs to submit plans for its safe disposal/burial	Local bodies of the area
13	Motor Vehicle Act 1988 and amendment till date	To minimize the road accidents, penalizing the guilty, provision of compensation to victim and family and check vehicular air and noise pollution.	Yes	Transportation of manpower and material	None	Motor Vehicle Department (Licensing authority, registration authority & State Transport Authorities)
14	The Gas Cylinder Rules 2016	To regulate the storage of gas / possession of gas cylinder more than the exempted quantity.	Yes	Gas cylinders may be used during welding and other electromechanical work. Storage within threshold quantity and as per capability analysis. Handling with defined safe practices	None	PESO
15	Ancient Monuments and Archaeological Sites and Remains Act, 1958	Conservation of cultural and historical remains found in India.	Yes	If Presence of historical sites of archaeological importance	None	Archaeological Dept. GoI
16	Building and Other Construction Workers	To regulate the employment and conditions of service of buildings and other construction workers and to	Yes	Involvement of workforce/labour	None	Labour Commissioner

	(Regulation of Employment and Conditions of Service) Act, 1996	provide for their safety, health and welfare measures and for other matters connected therewith or incidental thereto.				
17	Plastic waste management Rules, 2016	To manage the plastic waste generated such that it does not affect the water pipeline, animals and other environmental components	Yes	Plastic waste generation from proposed activities. Safe disposal as per Rules	None	Local bodies of the area
18	E-Waste Management Rules, 2016	Protection of environment against improper handling storage and disposal of hazardous waste.	Yes	E-waste generation from replacement of instrumentation. Safe disposal as per rules	None	CPCB & SPCB
20	The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013	The act provides for a transparent process and fair compensation in land acquisition for public purpose and provides for rehabilitation and resettlement of land owners and those affected by land acquisition. It comprises four schedules that provide the minimum applicable norms for compensation based on market value, multiplier and solatium; resettlement and rehabilitation (R&R) entitlements to land owners and livelihood losers; and facilities at resettlement sites for displaced persons, besides providing flexibility to states and implementing agencies to provide higher norms for compensation and R&R.	Yes	Applicable to all sub-projects when private land is required to acquired involuntary basis i.e. if land is not taken on direct purchase from the owner complying with ESS 5, para 6.	Stage wise notification as per Act	Revenue Department/District Administration of the concerned state
21	Rights of Persons with Disabilities Act, 2016	Ensures that the Persons with Disability (**PWD)** enjoy the **right** to equality, life with dignity, and respect for his or her own integrity equally with others.	Yes	As there are sub-projects that are likely to comprise sub-project activities that aim to improved access for the those physically challenged	None	
22	Right to Information	The Act provides for setting out the practical regime of	Yes	Borrower is	None	All Government

	Act, 2005	right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, the constitution of a Central Information Commission and State Information Commissions and for matters connected therewith or incidental thereto.		government organization and is mandated by the act		Departments
23	Article 366 (25) of the Constitution of India Article 244(1) of Constitution of India - The Fifth Schedule under Article 244(1) of a subsequent Act of Constitution ñScheduled Areasò as such areas as the President may by order declare to be Scheduled Areas after consultation with Governor of that State.	Defines following essential characteristics, for a community to be identified as Scheduled Tribes are; • Indications of primitive traits; • Distinctive culture; • Shyness of contact with the community at large; • Geographical isolation; and • Backwardness. The criteria for declaring any area as a ñScheduled Areaò under the Fifth Schedule are; (a) preponderance of tribal population, (b) compactness and reasonable size of the area, (c) a viable administrative entity such as a district, block or Taluka, and (d) economic backwardness of the area as compared to the neighbouring areas.	Yes	Shall be applicable in case dams are located in such Schedule V or VI Areas and interventions are directly affecting the areas	None	Government of India
24	Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006	To recognize and vest the forest rights and occupation in forest land in forest dwelling STs and other traditional forest dwellers who are residing in such forests for generations but whose rights could not be recorded. Its objective is to facilitate the overall development and welfare of the tribal people by empowering them socially, economically, politically without any impact on their culture, habitation and tradition and in terms of their age-old rights and privileges.	Yes	None of the project interventions are likely to impact the tribals rights but these cannot be fully ruled out	The Gram Sabha resolution for determining the nature and extent of individual or community forests rights	Ministry of Tribal Affairs
25	Panchayats (Extension to the Scheduled Areas) Act, 1996	The Gram Sabha or the Panchayats at the appropriate level shall be consulted before making the acquisition of land in the Scheduled Areas for development projects	Yes (in select states with Schedule V and VI areas)	One of the important provisions of this	The Gram Sabha or the Panchayats at the appropriate level shall be	Concerned State Governments

		and before re-settling or rehabilitating persons affected by such projects in the Scheduled Areas.		act states ñthe Gram Sabha or the Panchayats at the appropriate level shall be consulted before making the acquisition of land in the Scheduled Areas for development projects and before re-settling or rehabilitating persons affected by such projects in the Scheduled Areas.	consulted before making the acquisition of land in the Scheduled Areas for development projects and before resettling or rehabilitating persons affected by such projects in the Scheduled Areas	
26	**Major Labour Laws Applicable to Establishments Engaged In Building And Other Construction Work**					
1	Employees Compensation Act 1923	The Act provides for compensation in case of injury, disease or death arising out of and during the course of employment.	Yes	Contractor/Labour engagement	None	Commissioner for Workmenôs Compensation
2	Payment of Gratuity Act 1972	Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 yearsô service or more or on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.	Yes	Contractor/Labour engagement	None	Chief Labour Commissioner
3	Employees P.F. and Miscellaneous Provision Act 1952 (*since amended*)	The Act provides for monthly contribution by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:	Yes	Contractor/Labour engagement	None	Ministry of Labour
4	Maternity Benefit Act 1961	The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.	Yes	Contractor/Labour engagement	None	Chief Labour Commissioner
5	Sexual Harassment of Women at the Workplace (Prevention,	This Act defines sexual harassment in the workplace, provides for an enquiry procedure in case of complaints and mandates the setting up of an Internal Complaints	Yes	To address sexual harassment/sexual exploitation and	None	District Officer (District Magistrate or Additional

	Prohibition and Redressal) Act, 2013	Committee or a Local Complaints Committee		abuse that might occur within project offices or at project locations i.e. labor camps etc.		District Magistrate or the Collector or Deputy Collector)
6	Contract Labour (Regulation & Abolition) Act 1970	The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.	Yes	Contractor/Labour engagement	None	Chief labour Commissioner
7	Minimum Wages Act 1948[25]	The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.	Yes	Contractor/Labour engagement	None	Chief labour Commissioner
8	Payment of Wages Act 1936	It lays down the mode, manner and by what date the wages are to be paid, what deductions can be made from the wages of the workers.	Yes	Contractor/Labour engagement	None	Chief labour Commissioner
9	Equal Remuneration Act 1976	The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.	Yes	Contractor/Labour engagement	None	Chief labour Commissioner
10	Payment of Bonus Act 1965	The Act is applicable to all establishments employing 20 or more employees. Some of the State Governments have reduced this requirement from 20 to 10. The Act provides for payments of annual bonus subject to a	Yes	Contractor/Labour engagement		Chief labour Commissioner

[25] *The Code on Wages, seeks to amend and consolidate the laws relating to wages and bonus and subsumes the provisions of the Payment of Wages Act, 1936 ("**Payment of Wages Act**"), the Minimum Wages Act, 1948 ("**Minimum Wages Act**"), the Payment of Bonus Act, 1965 ("**Payment of Bonus Act**") and the Equal Remuneration Act, 1976 ("**Equal Remuneration Act**"). Though it has been enacted, it shall apply from the date it is notified by the government.*

		minimum of 8.33% of the wages drawn in the relevant year. It applies to skilled or unskilled manual, supervisory, managerial, administrative, technical or clerical work for hire or reward to employees who draw a salary of Rs. 10,000/- per month or less. To be eligible for bonus, the employee should have worked in the establishment for not less than 30 working days in the relevant year. The Act does not apply to certain establishments.				
11	Industrial Disputes Act 1947	The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations, a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.	Yes	Contractor/Labour engagement	None	Ministry of Labour and Employment
12	Trade Unions Act 1926	The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.	Yes	Contractor/Labour engagement	None	Ministry of Labour and Employment
13	Child Labour (Prohibition & Regulation) Act 1986	The Act prohibits employment of children **below 14 years of age** in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in the Building and Construction Industry.	Yes	Contractor/Labour engagement	None	Chief labour Commissioner
14	Inter-State Migrant workmenôs (Regulation of Employment & Conditions of Service) Act 1979	The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home up to the establishment and back, etc.	Yes	Contractor/Labour engagement	None	Chief labour Commissioner
15	The Building and Other Construction Workers (Regulation of	All the establishments who carry on any building or other construction work and employ 10 or more workers are covered under these Acts. All such establishments	Yes	Contractor/Labour engagement	None	Chief labour Commissioner

	Employment and Conditions of Service) Act 1996 and the Building and Other Construction Workers Welfare Cess Act, 1996 (BOCWW Cess Act)	are required to pay cess at the rate not exceeding 2% of the cost of construction as may be notified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as Canteens, First ï Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.				
16	Factories Act 1948	The Act lays down the procedure for approval of plans before setting up a factory engaged in manufacturing processes, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power.	Yes	Contractor/Labour engagement	None	Chief Inspector of Factories
17	Bonded Labour System (Abolition) Act, 1976	The Act provides for the abolition of bonded labour system with a view to preventing the economic and physical exploitation of weaker sections of society. Bonded labour covers all forms of forced labour, including that arising out of a loan, debt or advance.	Yes	Contractor/Labour engagement	None	Chief labour Commissioner
18	Employerôs Liability Act, 1938	This Act protects workmen who file suits for damages against employers in case of injuries endured in the course of employment. Such injuries could be on account of negligence on the part of the employer or persons employed by them in maintenance of all machinery, equipment etc. in healthy and sound condition.	Yes	Contractor/Labour engagement	None	Chief labour Commissioner
19	Employees State Insurance Act 1948	The Act provides for certain benefits to insured employees and their families in case of sickness, maternity and disablement arising out of an employment injury. The Act applies to all employees in factories (as defined) or establishments which may be so notified by the appropriate Government. The Act	Yes	Contractor/Labour engagement	None	Chief labour Commissioner

		provides for the setting up of an Employeesô State Insurance Fund, which is to be administered by the Employees State Insurance Corporation. Contributions to the Fund are paid by the employer and the employee at rates as prescribed by the Central Government. The Act also provides for benefits to dependents of insured persons in case of death as a result of an employment injury.				
20	The Personal Injuries (Compensation Insurance) Act, 1963	This Act provides for the employerôs liability and responsibility to pay compensation to employees where workmen sustain personal injuries in the course of employment.	Yes	Contractor/Labour engagement	None	Chief labour Commissioner
21	Industrial Employment (Standing Order) Act 1946	It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.	Yes	Contractor/Labour engagement	None	Chief labour Commissioner

Table A1.2: Applicability Analysis of World Bank Environmental and Social Framework Standards

Relevance and requirements -ESF Policy and Standards

ESF Policy, Standards & Guidelines	Relevant or Not relevant	Requirements
ESS1: Assessment and Management of Environmental and Social Risks and Impacts	Relevant for the whole project and shall form the basis to assess E&S risks and impacts in all projects, sub-projects and associated facilities; Also covers risks and impacts associated with disadvantaged and vulnerable groups and also impacts relating to potential SEA/SH or GBV risks arising from influx of migrant labor	(a) Conduct an environmental and social assessment of the proposed project, including stakeholder engagement; (b) Undertake stakeholder engagement and disclose appropriate information in accordance with ESS10; (c) Develop an ESCP, and implement all measures and actions set out in the legal agreement including the ESCP; and (d) Conduct monitoring and reporting on the environmental and social performance of the project against the ESSs
ESS2: Labour and Working Conditions	Relevant as engagement of labour for various civil, paint and electro-mechanical or any other activities as part of rehabilitation proposal. It applies to project workers including full- time, part-time, temporary, seasonal and migrant workers. It covers working conditions, protecting workforce, Grievance Mechanism and Occupational Health and Safety (OHS).	a) Preparation of Labour Management Procedures applicable to the project. including Contractor Code of Conduct. b) Establishing Grievance Mechanism including anonymity and sharing with all the workers c) Design and Implement OHS measures
ESS3: Resource Efficiency, Pollution Prevention and Management	Relevant as Resource consumption and pollution generation from proposed activities (civil, hydro-mechanical and paint work). This includes both hazardous and non- hazardous chemical pollutants in the solid, liquid, or gaseous phases	a) Assess the resource requirement and implement technically and financially feasible measures for improving efficient consumption of energy, water and raw materials, as well as other resources. b) Preparation of Resource Efficiency and Pollution Prevention Plan to assess and minimize/control the concentration of release of pollutants to air, water and land due to routine, non-routine, and accidental circumstances, and with the potential for local, regional, and trans-boundary impacts. c) water use and water conservation plan and other resource source and use and conservation plan. Contractor will ensure that resource required for Dam rehabilitation program is not sourced from unauthorized sources d) Efficient debris disposal plan e) Efficient disposal of other waste (biodegradable and non-biodegradable) hazardous waste (waste oil, empty paints

ESF Policy, Standards & Guidelines	Relevant or Not relevant	Requirements
		containers etc)
ESS 4: Community Health and Safety	Relevant as it applies to potential risks and impacts on communities that may be affected by project activities such as transportation of material to project site through village roads, labour colony housing migrant workers near the project site, pollution generation from civil and electro-mechanical work.	a) Pollution from project activities and labour colony and traffic causing pollution and road safety risks on village roads during transportation of material. Community Health and Safety Plan (including in relation project workers, and any risks of labor influx, such as communicable and non-communicable diseases) b) Preparation of Emergency Response Procedure (ERP) to prevent injuries to health and for safety of the community during and emergency event arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, flooding etc c) to establish and maintain the Dam Safety Review Panel (DSRP) for reviewing and confirming the adequacy of the design of rehabilitation and safety improvement works, quality of construction works, and other dam safety measures including dam safety plans.
ESS 5: Land Acquisition, Restrictions on Land use and Involuntary Resettlement	Applies to permanent or temporary physical and economic displacement resulting from land acquisition or restrictions on land use undertaken or imposed in connection with project implementation. Land might be required for structural interventions and activities relating to tourism/water recreation etc. if such land is taken, then impacts on land, private and community owned assets, including structures, trees and crops within existing dam area and outside is likely. Also physical and economic displacement too is likely.	Preparation of Resettlement Policy framework in accordance with applicable national and state laws and ESS 5 provisions. The RPF shall guide the preparation of RAPs as and when necessary
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural resources	Applies to all projects that potentially affect biodiversity or habitats, either positively or negatively, directly or indirectly, or that depend upon biodiversity for their success.	Biodiversity and conservation plan assessments specially to the DAM sites close to the conservation areas. A Bio-diversity Conservation and Management Plan (covering ecological flows and ecosystem services aspects), for all such sub projects where work or project activities have interface.
ESS 7: Indigenous Peoples/Sub-Saharan African Historically	Applies to traditional communities or schedule tribes, if they are present or have collective attachment to a proposed project area, as determined during the environmental and social assessment. This ESS applies regardless of	Preparation of Tribal Development Framework in accordance with applicable national and state laws and ESS 7 provisions. The TDF shall comprise of actions shall guide the preparation of TDPs as and

ESF Policy, Standards & Guidelines	Relevant or Not relevant	Requirements
Underserved Tradition Local Communities	whether such Communities are affected positively or negatively, and regardless of the significance of any such impacts. It shall be relevant to select sub-projects that are either located in Schedule areas or have the presence of such tribal groups in the project area that meet the characteristics outlined in ESS and in case Free Prior and Informed Consent (FPIC) is required	when necessary
ESS 8: Cultural Heritage	Applies to all projects that are likely to have risks/impacts on cultural heritage	A Cultural Heritage Management Guidelines and if required, a Plan in sub projects if any cultural aspects is likely to be affected from any of the dam scheme/ sub project)
ESS 9: Financial Intermediaries	Applies to Financial Intermediaries (FIs) that receive financial support from the Bank. FIs include public and private financial services providers, including national and regional development banks, which channel financial resources to a range of economic activities across industry sectors.	Not Relevant- Project does not have any FIs
ESS 10: Stakeholder Engagement and Information Disclosure	Applies to all projects supported by the Bank through Investment Project Financing. The Borrower will engage with stakeholders as an integral part of the projectôs environmental and social assessment and project design and implementation. Meaningful consultations shall be conducted. Special focus on vulnerable, disadvantaged groups shall be given. Consultations shall be held on an ongoing basis during the project period	It requires stakeholder engagement throughout the project life cycle, and preparation and implementation of a Stakeholder Engagement Plan (SEP). It also requires the Project Implementing agency to establish and implement a grievance mechanism to receive and facilitate resolution of concerns and grievances. The grievance mechanism needs to be proportionate to the potential risks and impacts of the project and be accessible and inclusive.

Annexure 2: ESDD Template

CHAPTER 1: INTRODUCTION

1.1 Project Overview
1.2 Sub-Project Description
1.3 Implementation Arrangement and Schedule
1.4 Purpose of ESDD
1.5 Approach and Methodology of ESDD

CHAPTER 2: INSTITUTIONAL FRAMEWORK AND CAPACITY ASSESSMENT

2.1 Policy and Legal Framework
2.2 Description of Institutional Framework

CHAPTER 3: ASSESSMENT OF ENVIRONMENTAL AND SOCIAL CONDITIONS

3.1 Physical Environment
3.2 Protected Area
3.3 Social Environment
3.4 Cultural Environment

CHAPTER 4: ACTIVITY WISE ENVIRONMENT & SOCIAL SCREENING, RISK AND IMPACTS IDENTIFICATION

4.1 Sub-Project Screening
4.2 Stakeholder Consultation
4.3 Risk and Impact Identification for the Screened Activities

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions
5.1.1 Risk Classification
5.1.2 National Legislation and WB ESS Applicability Screening
5.2 Recommendations
5.2.1 Mitigation and Management of Risks and Impacts
5.2.2 Institutional Management, Monitoring and Reporting

List of Figures

Figure xx: Selected Photographs of Improvement/Intervention area
Figure xx: Project Area showing major intervention locations
Figure xx: Land Use and Land Cover Map of 5 Km radius around Dam site
Figure xx: Figures depicting the important environmental/ cultural/ heritage sites/areas

Annexures: Screening Forms ï SF1, SF2, SF3

(BASED ON THE OUTCOME AND RECOMMENDATION OF ESDD, APPLICABLE ToC's SHALL BE INCLUDED IN ESDD REPORT FOR TAKING UP RESPECTIVE ASSESSMENTS AND MITIGATION PLANS: Ref Annexure 5 and Annexure 14)

Annexure 3: Environmental and Social Screening Process

The Process of risk /impacts identification is to be undertaken following three step Screening process:

Step I: Requires identification of applicable sub-project activities, likely nature of Risk and Impacts and Risk/impact zone viz. within or beyond dam area. This information is captured using screening format **SF-1**. In this template information in column 4 and 5 is important which will provide (a) risks / impacts within dam area or outside dam area and (b) likely nature of the risk/ impacts.

Step-II: All applicable activities identified as having potential risk /Impacts that were identified through Step I screening, are further screened for associated sub-activity and evaluated for the extent of risk. Intensity of risk/impacts. The identified risks are evaluated using Qualitative evaluation criteria as given below. Step II exercise are carried out using screening format **SF-2.** In this template the identified nature of the risk as per column 5 of SF-1 will be elaborated to show kind of impacts and risks**.**

Criteria for Risk evaluation

Low:	Localized, temporary and negligible
Moderate:	Temporary, or short term and reversible under control
Substantial:	Medium term, covering larger impact zone, partially reversible
High:	Significant, non- reversible, long term and can only be contained/compensated

Occupational Health and safety: OHS is a substantial risk activity in almost all cases and is not being considered under screening criteria. Occupational health and safety is considered an important requirement of every project irrespective of size and type of the projects. It will be part of Contractorôs ESMP.

Step III: This is one of the important screening template which will bring out the risks identified in the SF-2 . These risks will be distributed in to environmental and social risks to complete a matrix which will bring out a complete scenario of risks and their classification in a matrix format. Any of the activity comes a H or S will make the sub project a high-risk sub project and will undergo a detailed ESIA as per ToR included in this document. Low to moderate will follow Standard ESMP (annexed as volume 2 of this document) tweaked to identified activities under the sub project.

Extent: The word extent in the screening format indicates the risk/impact zone which can be within dam area or beyond dam area.

Reference Matrix Guide: Table SF-R will provide a guidance tool on identification of risks and thus provides Reference Matrix for Risk and Impact identification

Form SF-1: Project Component, Construction Support Preparatory Intervention relatedvs Extent and Nature of Risk/Impact

Sl. No	Project Component	Applicable (A), Not Applicable (NA)	Environment and Social Risk Associated within dam area (DI), Beyond Dam Area (DE)	Likely Nature of Risk/Impact Water Quality (WQ), Fisheries(F), Conservation area (CA), Protected Area (PA), Ecological (E), Physical Environment (PE), Cultural (C), Tribal presence (T), impact on private land/assets/encroachers/squatters (LA), Labor (L), GBV risks (G), (Write whichever is applicable)
1	**2**	**3**	**4**	**5**
A	**Nature of Project Component and related sub activity Related**			
1.	Reservoir De-siltation			
2.	Major structural changes ï additional Spill way construction (Improving ability to withstand higher floods including additional flood handling facilities as needed.)			
3.	Structural strengthening of dams to withstand higher earthquake loads			
4.	Structural Improvement/Repair work -upstream of Dam site (interfacing dam reservoir) (like resetting of Rip- Rap, repair of training walls, treatment of Honeycombed etc.)			
5.	Structural Improvement/Repair work - Downstream of Dam site (with no interfacing with dam reservoir) (like repair of parapet walls, damage spillway crest, downstream training walls, etc.)			
6.	Re-sectioning earth dams to safe, stable cross sections			
7.	Hydro-mechanical activities with interface with dam reservoir			
8.	Hydro-mechanical activities Downstream of Dam site (with no interfacing with dam reservoir)			
9.	Instrumentation, General lighting and SCADA systems			
10.	Basic Facilities improvements (such as access road improvement, renovation of office, etc)			
11.	Utility installation like standby generator, or setting up solar power systems			
12.	Painting of dam u/s or d/s or both faces			
13.	Water recreation activities			
14.	Tourism Development activities			
15.	Installation of Solar power/floating solar			
16.	List any other component not listed above			
B	**Pre-construction and construction stage major auxiliary or preparatory intervention**			
1.	Acquisition (diversion of forests land for non-forest purposes) of forest land			
1.	Acquisition of private land **Resettlement and Rehabilitation** (including physical or economic displacement/			

Sl. No	Project Component	Applicable (A), Not Applicable (NA)	Environment and Social Risk Associated within dam area (DI), Beyond Dam Area (DE)	Likely Nature of Risk/Impact Water Quality (WQ), Fisheries(F), Conservation area (CA), Protected Area (PA), Ecological (E), Physical Environment (PE), Cultural (C), Tribal presence (T), impact on private land/assets/encroachers/squatters (LA), Labor (L), GBV risks (G), (Write whichever is applicable)
	impact on livelihood;			
2.	Temporary loss of business Damages to crops or trees or structures outside the ROW during Construction activities by Contractor			
3.	Borrowing earth to meet Borrow materials requirement			
4.	Sourcing of Quarry materials			
5.	Blasting			
6.	Setting up Labour Camps (location within dam premises or outside)			
7.	Heavy machinery deployment and setting up maintenance workshop			
8.	Setting up Hot mix plant			
9.	Deployment of Concrete mixture and heavy pumps			
10.	Temporary land acquisition			
11.	Need of Tree felling/ vegetation clearance			
12.	Disposal of large amount of Debris			
13.	Transport of large construction material			
14.	Utility shifting			
15.	Discharge of reservoir water (lowering of reservoir water involved)			
16.	**List any other not activity not covered above**			

Note : Occupational Health and Safety aspects / impacts/ risks are considered important part of any dam project and this risk is separately classified. It shall be managed as per defined OH&S plans in every project irrespective of size and type of project.

SF -2:Applicable Activity (as per outcome of SF-1) linked Sub Project Activity vs Extent of Risk/Impact Intensity

(List the Sub Activities Involved at Column 2 with respect to Major Project Component envisaged and applicable under SC-1.).

Illustratively Few Activities and Subproject Activities Are Indicated at Column 2 of SF-2)

Sl. No	Applicable Project Component/ Construction preparatory Work-related Sub activity (As per SC-1)	Nature of Risk (Conforming to Column 5 of SF-1) and nature of sub activity	Elaborate cause (risk) and its effect (Impact) on environment /social (Pl give brief text summary)	Risk/Impact intensity for each type of risk/impact Low (L), Moderate (M), Substantial (S), High (H)
1	2	3	4	5
A	**Project Component Related**			
1.	**Structural Strengthening/Improvement/Repair work -upstream of Dam site**			
	Improving toe drain and seepage measuring devices			
	Treatment of leakage through masonry and concrete dams and reduction of seepage through earth dams and their foundations			
	Improving Dam Drainage			
	Cleaning/Reaming of Drainage holes (In Dam Body and foundation)			
	Repair and cleaning of irrigation outlets			
	Resetting of disturbed Rip-Rap			
	Treatment of Honeycombed area			
2.	**Structural Improvement/Repair work -Downstream of Dam site (with no interfacing with dam reservoir) (like repair of parapet walls, damage spillway crest, downstream training walls, etc.)**			
	Repairs to damaged spillways, stilling basins and downstream channels			
	Repair to Downstream Right-side Training wall			
	Repairs to steps on downstream face of Dam			
	Providing Epoxy thermal sealing on Dam.			
3.	**Hydro-mechanical activities Downstream of Dam site (with no interfacing with dam reservoir)**			
	Rehabilitation / Improvement of Spillway, head regulator and draw-off gates and their operating mechanisms			
	Repair / Modification of Spillway Gates			
4.	**Instrumentation, General lighting and SCADA systems**			

Sl. No	Applicable Project Component/ Construction preparatory Work-related Sub activity (As per SC-1)	Nature of Risk (Conforming to Column 5 of SF-1) and nature of sub activity	Elaborate cause (risk) and its effect (Impact) on environment /social (Pl give brief text summary)	Risk/Impact intensity for each type of risk/impact Low (L), Moderate (M), Substantial (S), High (H)
	Improving dam safety instrumentation			
	Improving communications ï real-time as much as possible ï between dams, upstream rain/river flow gauging stations and with other dams, control offices and civil authorities in flood plains downstream of the dam			
	Low voltage electrical supplies in inspection and drainage galleries			
	Improving lighting within dam compound			
5	Water recreation activities			
	Tourism Development activities			
	Installation of Solar power/floating solar			
B.	**Pre-construction and construction stage major auxiliary or preparatory intervention**			
1.	**Acquisition of Forest land**			
	Cutting of full-grown trees in large number			
	Presence of rare fauna and flora in the forests area			
	• Acquisition of private land • Resettlement and Rehabilitation (including physical or economic displacement/impact on livelihood; • Temporary loss of business • Damages to crops or trees or structures outside the ROW during Construction activities by Contractor			
2.	**Dredging/Desiltation**			
	Dredging material and its disposal			
	Silt discharge to water			

Note:

Criteria for Risk Evaluation:

Low: Localized, temporary and Negligible

Moderate: Temporary, or short term and reversible under control

Substantial: medium term, covering larger impact zone, partially reversible

High: significant, non- reversible, long term and can only be contained/compensated

Occupational Health and safety: OHS is a substantial risk activity in almost all cases and is being treated separately through OHS plan in accordance with WB ESHS guidelines and shall be applicable to all sub-projects. Hence is not being considered under screening criteria

Form -SF-3: Summary Risk and Impacts (Indicate L / M / S / H as applicable)

Project Activity (Indicative and to be changed as per sub project requirement)	Risk Assessment										
	Environment Risks						Social Risks				
	Air, water, noise, land use, Soil, Resource use	Pollution downstream and upstream	General Ecology	Protected Area (Wild Life Sanctuaries, National Park and other natural habitat even if not protected)	Other RET species (flora and fauna) outside protected areas (to be determined by area specific surveys during ESIAs)	Fish and Aquatic life within dam water body	Land	Tribal	Labor	Cultural heritage	SEAH/GBV
Civil (within Dam Boundary)											
Hydro-Mechanical											
Instrumental SCADA, surveillance											
Painting											
Road work											
Safety measures (Siren, Lighting)											
Major Civil Work like Additional Spill Way											
Major Hydraulic Structure (tunnelling)											
Major Civil Work extending beyond Dam Area Like training Structure											
Additional activities for Tourism /Solar/Fisheries/ Water recreation enhancement											

Notes:

1. In case even one of these 11 parameters in the E&S screening exercises at ESDD stage, results in a rating of either Substantial or High, then the E&S risk category of the sub-project would be categorized as Substantial or High. Following which ESIA would be carried out as per the given Terms of Reference that have been approved by World Bank

2. Risk evaluation should be decided before implementing mitigation measures.

3. Examples where sub projects may get classified as Substantial or High are ï interventions include additional spillway construction requiring land acquisition, interventions leading to permanent increase/ decrease of water flow/availability in the dam, interventions triggering a High/substantial GBV risk, consisting of factors outside project control impacting ES performance and outcomes such as complex existing legacy issues (R&R, interim/ final directions issued in interstate disputes) which may trigger High/substantial risks as per ESS, implementation and enforcement arrangements are weak, interventions leading to adverse impacts on IPs, natural habitats etc.

Table SF- R: Reference matrix on Risk/Impact identification with select sub activities

Activity	Component	Risk/ Impact
1.Reservoir Desiltation	Dredging/Desiltation	Water Pollution (Surface)
		Soil Pollution
		Trucks Traffic increase
		Water Delivery reduction, interruption
	Resettlement And Rehabilitation	Land acquisition
		Impacts on Non-Titleholders (encroachers/squatters) within ROW/govt. land
		Impact on local and tribal communities
		Disruption or loss of livelihood
		Impacts on cultural heritage
	Labour Camps	Sanitation issues
		Influx of migrant labour
		Gender Based Violence
		Impact on human health (Labour Camps)
	Heavy machinery	Air / Noise Pollution
		Soil Pollution
	Material handling and storage	Air Pollution
		Soil Pollution
	Tree felling/ vegetation clearance	Ecological loss
	Haulage of machinery	Air / Noise Pollution
		Soil Pollution
	Debris Disposal	Air Pollution
		Water Pollution (Surface)
		Soil Pollution
		Trucks Traffic increase
		Landscape Degradation
	Transport of dredge material	Air Pollution
		Soil Pollution
		Trucks Traffic increase
2.Tourism Development	Acquisition of forest land	Ecological Loss
	Borrow materials/ area (applicability of this aspect will depend upon nature development)	Air Pollution
		Trucks Traffic increase
		Soil Erosion
		Landscape Degradation
	Quarry materials sourcing (applicability of this aspect will depend upon nature development)	Air / Noise Pollution
		Trucks Traffic increase
	Dredging/Desiltation	Dreg generation and disposal
	Resettlement And Rehabilitation	Land acquisition
		Impacts on Non-Titleholders (encroachers/squatters) within ROW/govt. land

		Impact on local and tribal communities
		Disruption or loss of livelihood
		Impacts on cultural heritage
	Labour Camps	Sanitation issues
		Influx of migrant labour
		Gender Based Violence
		Impact on human health (Labour Camps)
	Heavy machinery	Air / Noise Pollution
		Soil Pollution
	Hot mix plant	Air / Noise Pollution
		Soil Pollution
	Concrete mixture and heavy pumps	Air / Noise Pollution
		Soil Pollution
	Material handling and storage	Air Pollution
		Soil Pollution
	Tree felling/ vegetation clearance	Landscape Degradation
		Impact on flora
		Soil Erosion
	Haulage of machinery	Air / Noise Pollution
		Soil Pollution
	Debris Disposal	Air Pollution
		Soil Pollution
		Landscape Degradation
		Water Pollution (Surface)
	Transport of materials	Air Pollution
		Soil Pollution
	Utility Shifting	Air / Noise pollution /Solid waste generation
3. Approach road, dam crest roads, etc. construction / improvement	Acquisition of forest land	Impact on flora
		Disturbance to Fauna
		Probability of Habitat loss fragmentation
		Landscape Degradation
		Disruption or loss of livelihood
	Borrow materials/ area	Air Pollution
		Soil Pollution
		Trucks Traffic increase
		Soil Erosion
		Landscape Degradation
	Quarry materials sourcing	Air / Noise Pollution
		Soil Pollution
		Trucks Traffic increase
	Blasting if involved	Air / Noise Pollution
		Soil Pollution
		Worker local People Exposure
		Landscape Degradation
		Generation of Debris
	Resettlement And Rehabilitation	Land acquisition
		Impacts on Non-Titleholders (encroachers/squatters) within ROW/govt. land
		Impact on local and tribal communities
		Disruption or loss of livelihood
		Impacts on cultural heritage

	Labour Camps	Sanitation issues
		Gender Based Violence
		Impact on human health (Labour Camps)
	Heavy machinery	Air / Noise Pollution
		Soil Pollution
	Hot mix plant	Air / Noise Pollution
		Soil Pollution
	Concrete mixture and heavy pumps	Air / Noise Pollution
		Soil Pollution
	Material handling and storage	Air Pollution
		Soil Pollution
		Worker local People Exposure
	Tree felling/ vegetation clearance	Landscape Degradation
		Impact on flora
		Soil Erosion
	Haulage of machinery	Air / Noise Pollution
		Soil Pollution
	Debris Disposal	Air Pollution
		Soil Pollution
		Landscape Degradation
		Water Pollution (Surface)
	Transport of materials	Air Pollution
		Soil Pollution
3. Treatment of leakage through masonry and concrete dams and reduction of seepage through earth dams and their foundations	Labour Camps	Sanitation issues
		Influx of migrant labour
		Gender Based Violence
		Impact on human health (Labour Camps)
	Heavy machinery	Air / Noise Pollution
		Soil Pollution
	Concrete mixture and heavy pumps	Air / Noise Pollution
		Soil Pollution
	Material handling and storage	Air Pollution
		Soil Pollution
		Worker local People Exposure
	Haulage of machinery	Air / Noise Pollution
		Soil Pollution
	Debris Disposal	Air Pollution
		Soil Pollution
		Landscape Degradation
		Water Pollution (Surface)
	Transport of materials	Air Pollution
4. Improving Dam Drainage	Labour Camps	Sanitation Issues
		Influx of migrant labour
		Gender Based Violence
		Impact on human health (Labour Camps)
	Concrete mixture and heavy pumps	Air / Noise Pollution
		Soil Pollution
	Material handling and storage	Air Pollution
		Soil Pollution
	Haulage of machinery	Air / Noise Pollution
		Soil Pollution
	Debris Disposal	Air Pollution

		Soil Pollution
		Landscape Degradation
		Water Pollution (Surface)
	Transport of materials	Air Pollution
		Soil Pollution
5. Structural strengthening of dams to withstand higher earthquake loads	Quarry materials / area	Air Pollution
		Soil Pollution
		Trucks Traffic increase
	Labour Camps	Sanitation issues
		Influx of migrant labour
		Gender Based Violence
		Impact on human health (Labour Camps)
	Heavy machinery	Air / Noise Pollution
		Soil Pollution
	Concrete mixture and heavy pumps	Air / Noise Pollution
		Soil Pollution
	Material handling and storage	Air / Noise Pollution
		Soil Pollution
	Haulage of machinery	Air / Noise Pollution
		Soil Pollution
		Worker local People Exposure
	Transport of materials	Air / Noise Pollution
		Soil Pollution
		Worker local People Exposure
6.Resectioning of earth dams to safe, stable cross sections	Borrow materials/ area	Air / Noise Pollution
		Soil Pollution
		Trucks Traffic increase
		Soil Erosion
		Generation Excavated Material
		Landscape Degradation
	Quarry material sourcing	Air / Noise Pollution
		Soil Pollution
		Trucks Traffic increase
	Labour Camps	Sanitation Issue
		Influx of migrant labour
		Gender Based Violence
		Impact on human health (Labour Camps)
	Heavy machinery	Air / Noise Pollution
		Soil Pollution
	Concrete mixture and heavy pumps	Air / Noise Pollution
		Soil Pollution
	Material handling and storage	Air Pollution
		Soil Pollution
	Haulage of machinery	Air / Noise Pollution
		Soil Pollution
	Debris Disposal	Land degradation
	Transport of materials	Air / Noise Pollution
		Soil Pollution
7. Repairs to damaged spillways, stilling basins and downstream channels	Labour Camps	Sanitation issues
		Influx of migrant labour
		Gender Based Violence
		Impact on human health (Labour Camps)
	Heavy machinery	Air / Noise Pollution
		Soil Pollution
	Concrete mixture and heavy pumps	Air / Noise Pollution

		Soil Pollution
	Material handling and storage	Air Pollution
		Soil Pollution
	Haulage of machinery	Air Pollution
		Soil Pollution
	Debris Disposal	Air Pollution
		Soil Pollution
		Landscape Degradation
		Water Pollution (Surface)
	Transport of materials	Air / Noise Pollution
		Soil Pollution

Annexure 4: Summary of ESDD - E&S risks and impacts in 10 dams

1. Rehabilitation proposals received for 10 dams located in the states of Rajasthan and Manipur were reviewed. These dams were as follows: Bisalpur, Mahi-Bajaj Sagar, SomKamla Amba, Jawai, SukliSelwada, Chhapi, Matrikundia and Gambhiri dams in the state of Rajasthan and Imphal barrage and Singda Dam in the state of Manipur. Some of the proposed activities in these select dams are described below:

   Structural Rehabilitation Works

   These include raking and pointing of upstream face of masonry dams with special UV resistant mortar, geo-membrane application on need basis, and grouting of dams to control seepage; treatment of dam contraction joints for damaged seals using hydrophilic materials; reaming of porous drains and re-drilling of foundation drains; bringing the earth dam section to design section; improvement of rip-rap, chute drains, toe drains, rock toe and general drainage system for earthen dams; improvement of access roads to different components of the dam project; providing security system to guard dam/project area; providing additional spillway structures / fuse plugs / flush bars to take care of increased flood; re-sectioning of dams to cater for increased design flood; repair of spillway glacis and energy dissipation arrangements; survey and mapping of cracks and its remedial measures; de-siltation of dam reservoirs on selective basis, all kind of investigations, physical modelling etc.

   Hydro-mechanical Work

   Replacement of rubber seals of the spillway and sluice gates and periodic overhauling of gate hoisting systems; repairs and replacement of gates; automation of gates and control room structures; need based provision of cat walk in old spillway gates to ensure all weather access for maintenance of these gates, General maintenance and up keeping of radial gates and hoist bridge, Supply and installation of DG Set, Repairs of Gantry Crane, Supply and fixing of new steel wire rope of radial gates, Renovation of centralized control system for operating of radial crest gates etc.

   Basic facilities improvement

   Providing Lighting over Dam and surrounding area including in drainage and foundation gallery, dewatering pumps provision of standby DG sets, Renovation of existing approach road to dam, Renovation of existing rest house and surrounding area of dam, Providing and installing of lightning arrester at dam, Renovation of control room tower of dam, material testing laboratories, training centres, control and command centres, including all other basic logistic facilities etc.

   Instrumentation, SCADA, Surveillance system, etc.

   Installation of instrumentation on Dam, underwater ROV videography for damage assessment, sirens at all dams etc.

2. While one state Rajasthan is in the desert ecology with flat terrain and other Manipur has hilly terrain, is in the north eastern part of India. The dams in Manipur are located in seismologically high active zone, while two of the dams in Rajasthan are in the tribal areas. Two dams out of 10 dams are located closer to conservation area for the protection of specific species though none of the 10 dams are located close to any wild life sanctuaries/national parks. Rajasthan state has lowest level of forest in the country. Avi fauna activity are observed in all the dams however extent of species and activity vary from dam to dam.

3. The type of interventions within these 10 dams indicate that these are concentrated within dam area and impacts are also localized and range from low to moderate. There is no direct

impact due to construction activities envisaged in all these ten dams. Though fishing activities are prevalent in most of the dam area, but these water bodies are owned by government agencies and fisherman community do not have any presence in these area like in coastal areas. Also, fishing activity has well established norms and procedure over the years, and done on the contract basis without any open access to public. Hence the proposed interventions shall not directly or indirectly impact the livelihoods of the fishing communities. As part of the risk assessment exercise, a locational specific environmental and social sensitivity analysis was carried out. As per the analysis (see Table 1), none of the schemes are located in protected area. Table 1 clearly shows that all interventions proposed in the ten dams are not locationally sensitive and have no impact on these sensitive locations.

Table1 Project Specific Locational Sensitivity for 10 Dams where ESDDs are completed

Environmental and Social sensitivity	Rajasthan	Mani pur	Remark
In Protected area (Wild Life Sanctuaries, National Park and other natural habitat even if not protected)	0	0	Bisalpur and Jawai dams are in proximity to declared conservation areas of the state[26]. These are old dams and no intervention has been proposed inside the conservation area.
Social sensitivity	0	0	Two dams viz. Mahi Bajaj Sagar and SomKamla Amba fall in Scheduled V Areas[27](Activities / interventions are on the dam structure and no activities proposed outside the dam property
Cultural or Archaeological sensitivity	0	0	Bisalpur dam has a protected Monument, partially submerged behind dam called Bisaldeo temple, a monument of National Importance as designated by Archaeological Survey of India (ASI)[28] but no project activity or intervention are proposed close to this monument.
Legacy issues	0	0	Matrikundia Dam- there were submergence of downstream farm lands from dam releases. Currently the case for compensation is under judicial review29. Chappi Dam ï During construction, 25 years ago there was a non-fatal accident. Family members expect a job when the project starts6.
No locational sensitivity	8	2	So, there is no locational sensitivity in any of these 10 dams

4. Stakeholders consultation was undertaken, indicated that these rehabilitation projects were found to have wide acceptability with no issue of concern and the stakeholders welcomed the interventions proposed that would lead to more safety and also address their concerns of occasional flooding. Consultations also brought out that these dams do not have any legacy issues relating to resettlement & rehabilitation. Based on the above, it is clear that E&S risks assessments the first set of 10 dams indicate that environmental and social risks and impacts are either Low to Moderate risk category. Table 2 below was used as a guidance tool to analyse the E&S risk and impacts of the proposed activities in these 10 dams.

[26]Conservation Reserves are declared for the purpose of protecting landscapes, seascapes, flora and fauna and their habitat.
[27] Scheduled V Areas are areas in India with a preponderance of tribal population subject to a special governance mechanism wherein the central government plays a direct role in safeguarding cultural and economic interests of scheduled tribes in the area.
[28] ASI has carried out restoration and maintains the temple. No construction activity is proposed in the vicinity of the temple and also temple will not be accessible to labour working on construction work
[29] Such instances are not uncommon and neither the context of the cases or the outcomes of the cases will have a impact on the proposed interventions

Table 2: Analysis of Potential Environmental and Social Risks of 10 dams (by type of activities and interventions)

Project Activity	Risk Assessment										
	Environment Risks						Social Risks				
	Air, water, noise, land use, Soil, Resource use	Pollution downstream and upstream	General Ecology	Protected Area (Wild Life Sanctuaries, National Park and other natural habitat even if not protected)	Other RET species (flora and fauna) outside protected areas	Fish and Aquatic life within dam water body	Land	Tribal	Labor	Cultural heritage	SEA/SH
Civil (within Dam Boundary)	M	L	M	L	L	L	L	L	M	L	L
Hydro-Mechanical	M	L	L	None	None	L	L	L	M	L	L
Instrumental SCADA, surveillance	L	L	L	None	None	L	L	L	L	L	L
Painting	L	L	M	None	None	L	L	L	M	L	L
Road work	M	L	M	L	L	L	L	M	M	L	L
Safety measures (Siren, Lighting)	L	L	L	L	L	L	L	L	L	L	L

Environmental and Social risks for 10 Dams are found to be low (L) to moderate (M) risk category.

5. Based on ESDD, Applicability of E&S risk and Impacts is defined with respect to ESS and mitigation instrument to be applied and same is presented at Table 3.

Table 3 :lists the mitigation plans against relevant ESS.

S.No.	E&S risks and impacts	ESS	Applicability by dam and Mitigation instrument
1	Dam with interface of migrant labor with communities ï	1	**Applicable to all dams** SEA/SH (GBV) risk mitigation guidelines as per overall GBV risk mitigation framework
2	Labour involvement for works and their stay at site for a period of ranging from some months to about 3 years. Labour intensive work always involves risks of accidents such as working at heights, working on upstream body of dam, underground activities, etc. The project is likely to involve direct labor, contract labor and community workers.	2 & 4	**Applicable to all dams** Labor Management Procedure (LMP) and Community Health Management Plan

S.No.	E&S risks and impacts	ESS	Applicability by dam and Mitigation instrument
3	Use of resources such as water and power during construction, pollution generation from storage and handling of material, generation of waste, use of paints and other chemicals for construction activities, transportation of raw material, etc Risk is associated on soil quality due to disposal of debris, however this risk is minimised with proposed planned and controlled disposal of debris. Air quality, water quality, noise level and resource use ï all such risk and impacts are anticipated to be localised and moderate in nature.	3	**Applicable to all dams** Resource Conservation Plan Debris disposal plan Construction management guidelines for noise and air management and water quality monitoring and measurement
4	Dams located in the vicinity of conservation areas or national wildlife sanctuaries or parks	6	**Applicable to Bisalpur and Jawai Dams only** Bio-diversity management Plan
5	Non-structural interventions for dams located in Schedule V areas and/or having tribal population that meet characteristics outlined in ESS 7	7	**Applicable to Mahi Bajaj Sagar and SomKamla Amba dams only** Preparation of TDP
7	All dams involving multiple stakeholders involving structural and non-structural interventions	10	**Applicable to all dams** Stakeholder Engagement Plan as part of the ESDD

Annexure 5: Standard ESMP for Low to Moderate Risk Sub Projects

STANDARD ESMP FOR LOW TO MODERATE RISK SUB PROJECTS IS APPENDED TO THIS ESMF AS APPENDIX 1.

DAM REHABILITATION AND IMPROVEMENT
PROJECT PHASE II

(Funded by World Bank)

STANDARD ENVIRONMENTAL AND SOCIAL
MANAGEMENT PLAN (ESMP)

CENTRAL WATER COMMISSION
GOVERNMENT OF INDIA

August 2020

(ESMP shall be included in Bid documents)

Annexure 6: Terms of Reference to undertake Environmental and Social Impact Assessment for High and Substantial Risk Projects

Environmental and Social Impact Assessment for Substantial or High-Risk projects and prepare
Environmental and Social Risk Assessment and Mitigation instruments

TERMS OF REFERENCE

1.0 Project Background

Over the last 50 years, India has invested heavily in dams and related infrastructure. According to the International Commission on Large Dams (ICOLD), India with 5264 large dams accounts for nearly 10% of the worldôs large dams registered with ICOLD, ranking third in terms of numbers after China and the United States.[1] Most of the dams were constructed and are managed by State governments, in addition to a few federal agencies such as Damodar Valley Corporation (DVC) and Bhakra Beas Management Board (BBMB). This extensive network of dams has been pivotal to achieving greater water security, and to bolstering agricultural growth and economic development. But the performance of dams is declining due to the aging of infrastructure (most dams are well over 25 years old; several hundred are more than 50 years old), backlog in maintenance, damaged structures, inadequate instrumentation and monitoring, deficient reservoir operation practices, and inadequate regulatory and operational safety measures. The root **causes of the poor condition of dam assets are a pervasive "build-neglect-rebuild" cycle** characterized by deferred maintenance and premature deterioration, insufficient funds and lack of sustainable mechanisms to finance dam operations and maintenance (O&M) and safety measures, and inadequate capacity of dam engineers.

Since 2010, GOI has been implementing the World Bank-supported Dam Rehabilitation and Improvement Project (DRIP-1) to begin to address dam safety concerns. DRIP-1 covers 223 dams located in six States (Karnataka, Kerala, Madhya Pradesh, Odisha, Tamil Nadu and Uttarakhand) and DVC. It is financing rehabilitation of dams and associated appurtenances and strengthening institutions. GoI has approached the World Bank for a Phase II of this project. The formal GoI request was for DRIP Phases 2 and 3, over a period of 10 years and a total amount of US$ 1.4 Billion, equally split between the two phases. DRIP-2 builds on the lessons and successes of DRIP-1 and would continue to finance structural improvements but would break with the prevailing ôbuild-neglect-rebuild approach by giving greater emphasis to establishing sustainable mechanisms for financing regular O&M and dam rehabilitation, enhancing State capabilities to manage these critical assets through institutional reform and strengthening, and introducing risk-based dam management.

The proposed Project Development Objective (PDO) is to ñimprove dam safety and strengthen institutional capacity for enhanced operational performance of selected existing dams in participating States. The proposed project would comprehensively address State-level dam safety concerns in the participating States (including institutional reforms and modernization, instrumentation, etc.),

[1] The definition of a large dam in India is based on the International Commission on Large Dams (ICOLD) that defines a large dam to be more than 15 meters high, or more than 10 meters high and either: (i) more than 500 meters long; or (ii) having a reservoir volume of more than one million cubic meters; or (iii) having a maximum flood discharge greater than 2000 cubic meters; or (iv) with difficult or unusual features. Under the World Bankôs Environmental and Social Framework, large dams are defined as those with a height between 5 meters and 15 meters and a reservoir capacity of more than 3 million cubic meters, in line with the current ICOLD constitution.

although the investments in dam rehabilitation will be limited to selected dams in each State. Many dams will be taken up across many States such as ï , Chhattisgarh, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, and West Bengal and two Central agencies (Central Water Commission and BBMB). As shown in the figure below, the number of dams varies across the States, with Rajasthan and Maharashtra having the most under the project and BBMB, Goa and Manipur having the least.

2.0 Objective of DRIP II

An indicative (but not exhaustive) list of the sub-projects, based on preliminary screening of sub-project proposals are as follows:

i. rehabilitation and improvement of dams and associated appurtenances (repair of cracks, resettling of rip/rap, repairs to internal dam roads, paths, parapet walls on dam top; repairs to damaged spillway;
ii. Concrete masonry dams and spillways (works to arrest seepage, grouting, geo-membrane, works in spill channel; repairs to training/divide walls, Protective works, drainage, radial gate maintenance; Sedimentation management, inundation mapping, catchment area treatment, monitoring etc;
iii. Hydro mechanical works (repairs/replacement to gates, stand by generators, electrical works);
iv. Electrical works (lighting over dams, galleries); and
v. Basic facilities (basic facilities, reconstruction /renovations to existing building offices, repair of culverts, tourism development; dam instrumentation; construction of control room; establishment of training centres relating to Dam Safety, etc.)

Based on a combination of risks and impacts following a preliminary screening of the above sub-projects identified at this stage, the Environmental & Social risk at the Project Concept stage is rated as **High for the overall project.**

The objectives of this assignment are to prepare Environmental and Social Impact Assessment and preparation of E&S risks and impacts management tools for the dams requiring structural and non-structural measures and related interventions and other Associated facilities, in accordance with the World Bankôs new Environmental and Social Framework (ESF) and in conformity with the applicable Social and Environmental Legal and Regulatory framework of the Government of India and governments of participating project states. **The ESIA will be conducted for all such dams, where ESDD studies have recommended the sub-project classification as High/ Substantial or where high impact Tourism Development or Solar development works are going to be piloted under the project.**The ESIA will be conducted in accordance with Environment and Social Standard ESS1: Assessment and Management of Environmental and Social Risks and Impacts, and will consider, in an integrated way, all relevant direct, indirect and cumulative environmental and social risks and impacts of the project, including those specially identified in accordance with ESS 1 to 10 Standards.

Preceding steps to ESIA preparation: Carrying out ESDD: It will be applicable to all the dams having major or minimal structural, or strengthening and non-structural activities. The ESDD is conducted employing screening and assessment method based on screening formats and will help identify which of the ESS are relevant and therefore mitigation measures/plans to meet the particular ESSôs requirements Outcome of ESDD will determine the level of risk viz Low, Moderate, Substantial or High. The dam having high or substantial risk or Major Structural changes will move to step II below. For the sub projects having low or moderate risk ESMP as detailed under step III will be prepared.

Step II: Detailed ESIA: based on recommendation of ESDD, those dams having major structural and non-structural activities having High and Substantial Risk /impacts and influence may extend

even beyond dam compound will undergo detailed ESIA. There may be possibility that such dams will also require environmental clearance under EIA notification 2006. The detailed ESIA will have to conform to all ESS 1 to 10 standards. The data and other studies will be undertaken as per scoping report. This will follow scope of work given at section 4 B.

Step III: Dam having low or Moderate Risks: Those dams having low or medium risk and also requiring no environmental clearance under EIA notification 2006, will follow Environmental Compliance requirements as per the DRIP II ESMF and detailed ESMP will be prepared in house/ professional E&S consultant.

Step IV: **ESIA approvals**: The ESIA and deliverable under this step will be approved by SPMU/CPMU and will be shared with Bank for its clearance.

However, in all cases, Labor Management Procedures by implementing agency; a Stakeholder Engagement Plan for each dam/intervention based on the overall and approved Stakeholder Engagement Framework and a site specific Migrant Labor Management cum Gender Based Violence Mitigation Plan (if required) will be developed.

3.0 Scope of Work

In line with the requirements of the World Bankôs ESF, (Insert Name of Implementing Agency) now wishes to engage a Consulting Firm (hereafter named ñthe Consultantò) for the preparation of an Environmental and Social Assessment and preparation of management/mitigation instruments to address projectôs E&S risks and impacts for sub-projects in DRIP II.
The scope of work to be carried out by the Consultant shall include but not limited to the following:

a) Undertake **review of due diligence** and screening activities as summarized in **ESDD report**

b) Conduct detailed Environmental and Social Impact Assessment (ESIA) for the dams in accordance with Bankôs new ESF. In addition, the Consultant will prepare as necessary Environmental and Social Management Plan (ESMP), Biodiversity Conservation and Sustainable Management of Living Natural resources Plan (BCSMP), Resource Efficiency and Pollution Prevention and management plan (REPPMP), Community Health and Safety Plan (CHSP), Resettlement Policy Framework (RAP), Tribal (Indigenous)/Indigenous Peoples Development Plan (IPDP), Labor Management Procedure and Stakeholder Engagement Plan (SEP) etc. as appropriate.

c) The Consultant will support the client in complying with requirements such as preparation of application and supplementary reports (survey and preparation) required per local regulatory requirements for obtaining projectôs clearances like forest /environmental/wildlife clearances, if applicable, and presentation before expert panel committees of MoEF&CC, Central Water Commission (CWC) Govt. of India.

d) Develop a coordination mechanism to ensure timely sharing/exchange of information and documents with DPR Consultant. The Consultant shall ensure DPR Consultant/Implementing Agency integrates recommendations on environmental and social mitigation measures in design, working drawings, developing specifications, estimates of quantity and ESMP budget; and linking quantity and management measures in bid document.

e) The Consultant shall **conduct consultations** with identified stakeholders and project-affected parties/community from early project planning and design stages of the assignment. The Consultant shall support the client in developing Stakeholder Engagement Plan (SEP) for entire project cycle and its disclosure.

f) Support (Insert Name of Implementing Agency) **complying with** óEnvironment and Social Commitment Planô (ESCP) agreed with the World Bank. The ESCP will provide according to a specific timeframe (a) a list of management plans, based on ESA/ESIA findings that borrower

will develop and implement, (b) the appropriate plans and actions required for the project to meet ESSs requirements, (c) adaptive management process for changes in project scope and unforeseen circumstances, and (d) include targets and performance indicators for borrowerôs monitoring.

g) **Conduct capacity building training** on Bankôs new Environmental and Social Framework (ESF), Environmental and Social Management Plan, and aspects like efficient use of raw materials i.e. use of local materials, recycled aggregates; climate resilient measures; water conservation and management, GHG reduction, emergency preparedness etc. which are integral part of Bankôs ESF policy.

4.0 Detailed Scope of Work

Task A: Activities to be undertaken during Inception Stage

a) The Consultant shall use the inception period to familiarize with the project details. The Consultant shall be cognizant/take cognizance of engineering studies already prepared/being prepared in parallel. The Consultant should also recognize that due care and diligence planning during the inception stage helps in improving the timing and quality of the ESIA reports.

b) During the inception period the Consultant shall (i) study the project information to appreciate the context within which the ESIA should be carried-out, (ii) carry out review of due diligence of each project and identify the magnitude of risk and impacts and likely influence area or impact zone Finding of this due diligence will be shared with the consultant to identify the detailed scope of ESIA/ESMP. The consultant shall identify the sources of secondary information on the project and on the project area and conduct preliminary planning survey to understand environment settings, available/existing land and required land for sub-project activities; design and developing formats for field and design survey. The consultant shall prepare preliminary estimation of impacts on private and community properties including impacts on non-titleholders and carry out identification of stakeholders, plan consultations with stakeholders and likely project affected parties. The consultant shall study the various available surveys, techniques, models and software in order to determine the most appropriate options in the context of the project.

c) The Consultant shall review and identify Borrowerôs E&S rules/regulations to identify required actions considered necessary for the project to achieve compliance with local legal requirements, insofar as they do not contradict the Bank ESF Policy;

d) The Dam Rehabilitation and Improvement Project (DRIP) and DRIP ï Additional Financing Projects, preceding the current proposed DRIP II, has implemented measures to minimize the impacts of project on overall environment by undertaking interventions like design modification and adoption of innovative technologies. The Consultant shall review reports (select DPRs and Environment and Social Management Framework) of DRIP I and DRIP II and will assess applicability of identified good engineering practices in the project. The Consultant will summarize how lessons learnt from the previous project and completed studies of DRIP II would be applied to the preparation and implementation of this project.

e) The Consultant after appreciation of consultancy assignment scope and site conditions, shall fine-tune the methodology(ies) that shall be used to carry out Environmental and Social Impact Assessment (ESIA) for the dam.

f) The Consultant shall interact with the /Implementing Agency to determine how the ESIA activities fits into the overall project preparation/ project cycle; and to appropriately plan the timing of the deliverables of the ESIA process. In addition, a mechanism for continuous interaction between the Implementing Agency and ESIA Consultant teams shall be formalized and succinctly documented in the Inception Report.

Deliverable at this stage:

1. Inception report consisting of review findings, proposed plan of action, support required, deployment of resources and deliverables timeframe.

2. Suggested ESMP and contents

3. Primary data collection plan for detailed ESIA based on Secondary data availability and ESDD.

4. Outline of different Environmental management plans, RAP, TDP (if applicable) required.

Task B: Undertaking ESIA and Preparation of Sub-project specific E&S assessment and plans

As this stage, social and environmental assessment will be undertaken as per tasks listed below

a) Define project's 'study area' or project influence area

The Consultant shall define the ósteudy areaô considering different project activities and associated facilities[2] and environment setting in likely influence area. Specify the boundaries of the study area for the assessment: in-migration and settlement, natural resource exploitation, commercial development for financial resource generation, air and noise pollution, terrestrial and aquatic ecology of the area (presence of forests areas, national parks etc) , land use, etc

b) Surveys

The Consultant shall collect information on the existing environment & socio-economic profile/setting from authentic secondary sources, and identify gaps to be filled, relevant to the environmental & social screening needs from primary surveys. Primary surveys shall include baseline monitoring of air, water, soil, noise and vibration at representative and sensitive locations, and identification of all macro-level environmental & social issues within the projectôs study area. The extent of primary data collection may vary depending upon the project activities and extent of associated risk and impacts identified during inception stage.

The Consultant shall survey the environmentally & socially sensitive locations in the sub-project area as well as within the projectôs study area. All regionally or nationally recognised environmental resources and features within the projectôs study area shall be clearly identified, and studies in relation to the proposed scope of the project. Typically, these will include areas ecological importance, congested habitation area around the dam and which are likely to be impacted, trees; land use around dam area including depiction of environmental and common property resources such as forests, water bodies; archaeological sites and major/minor physical cultural properties such as temples, shrines, mosques, etc, transportation systems, migratory route of animals if any, public utilities like water supply line depended on dams, waste disposal sites etc All these parameters for impact assessments shall be depicted using an topo-sheet and area map. The information of longitude, latitude should be indicated for importation locations and sensitive areas. In addition, the consultant is to ascertain presence of tribals in dam sub-projects whose characteristics match with requirements as listed under ESS 7 and thereby assess the need to prepare Tribal Development Plans for such dam sub-projects.

c) Review of Environmental & Social Legal Requirements

Taking cognizance of existing state and nationalôs social and environmental acts, rules and regulations, the Consultant shall review environmental and social legal requirements set forth per local regulations to assess their applicability to the project. The permissions and clearances required shall be listed beforehand for implementation of the project.

d) Baseline Data

The Consultant while planning baseline data collection shall ensure (a) relevance of baseline data to

[2]Refer ESF, 2016 of the World Bank

predict impact and design mitigation measures; (b) identify data gaps and uncertainties associated with prediction;(c) based on current information, assess the scope of the area to be studied based on physical, biological, and socioeconomic conditions; (d) takes into account current and proposed development activities within the project area but not directly connected to the project. This section should indicate the accuracy, reliability and sources of the data and consequences for assessing impacts and their mitigation). This section will address the separate Project influence Area (PIA) of each of the dam and will present GIS map, as appropriate.

e) Analysis of Impacts and Management Measures

The Consultant shall conduct a preliminary analysis of the nature, scale and magnitude of the impacts that the project is likely to cause on the environment, especially on the identified sensitive environmental receptors, and classify the same using established methods and tools. For the negative impacts identified, alternative avoidance/mitigation/management options shall be examined (in line with mitigation hierarchy outlined in the ESF), and the most appropriate ones suggested. For the positive measures identified, alternative and preferred enhancement measures shall be proposed

f) Scoping

The Consultant shall define boundaries of the project ESIA after careful consideration of the baseline scenario, likely potential environmental risks and impacts on the identified sensitive environmental receptors/VECs, and the proposed mitigation and enhancement measures. The scoping shall include a listing of potential environment issues that do not deserve a detailed examination in the project ESIA (covering induced impacts that may be outside the purview of the client) along with a justification. The scoping needs to identify potential environmental risks and impacts that should be studied during ESIA and recommend additional studies needed to comply the requirements of Environmental and Social Standards (ESSs) of the World Bank. If extensive study is recommended in future which is beyond the scope of the project, the draft ToR should be attached in the Annex. Detailed content of ESDD shall also form part of Scoping report.

g) Stakeholder Engagement Plan

The Consultant shall develop a draft Stakeholder Engagement plan that shall be applicable throughout the project cycle. Nature and scope of stakeholder engagement would be proportionate to the nature and scale of the project and its potential risks and impacts. In preparing this SEP, the Consultant shall carry out preliminary consultations with communities that are likely to be affected, NGOs, selected Government Agencies and other stakeholders. An indicative (but not exhaustive) list of stakeholders indicates stakeholders to be: district administrations of areas with dams, departments of forests, horticulture, agriculture, revenue and tourism; local communities civil society organizations, media agencies ï both print and audio/visual; police authorities, district administration, State Disaster Management Authority (SDMAs) and National Disaster Response Force (NDRF), and people likely to be affected due to pre-construction and construction stage impacts; and response providers i.e. NGOs/CSO involved as part of the GBV risk mitigation plan.

The purpose of these interactions would be to: (a) collect baseline information, (b) obtain a better understanding of the potential risks and impacts and capacities (c) appreciate the perspectives/concerns of the stakeholders. Consultations shall be preceded by a systematic stakeholder analysis, which would (a) identify the individual or stakeholder groups relevant to the project and to social and environmental issues including affected parties, other interested parties, disadvantaged/vulnerable groups (b) determine the nature and scope of consultation with each type of stakeholders, (d) determine the tools to be used in contacting and consulting each type of the relevant stakeholders (e) mode of consultation and time of consultation (f) management functions and responsibilities (g) monitoring and reporting. Consultation with the stakeholders shall not be treated as a project information dissemination session but as step to improve the plan and design of the project and shall continue through project implementation. A single Stakeholder Engagement

Framework (SEF) is prepared for the overall project that would lay down principles, process and protocol to be followed for consultations, identification of stakeholders, etc. at each dam level.

Deliverables at this stage:

i) Scoping Report and ii) Stakeholders engagement plan

C. Tasks for Conducting ESIAs

h) Environmental inputs to Engineering Feasibility Studies

The Consultant shall make location-specific design recommendations, wherever possible, construction material use, erosion control, and mitigation & enhancement measures. For all the different alternative improvement proposals under consideration, using acceptable/established valuation techniques, the Consultant shall prepare {a} an estimate of economic costs of the environment damages, and economic benefits from the direct positive impacts that the project is likely to cause, and {b} an estimate of financial cost on the mitigation and enhancement measures that the project is likely to require, and financial benefits, if any.

i) Legal and Institutional Framework

The Consultant shall review and assess applicability of existing national and stateôs Environmental and social requirement according to applicable policies, laws, regulations, rules and procedures; as well as the institutional framework relevant to environmental and social aspects. The assessment will identify inconsistency or lack of clarity and aspects relevant to address projectôs E&S risks and impacts; and deviations with respect to requirements in ESSs. Based on assessment findings, the Consultant in discussion with (Insert Name of Implementing Agency) shall suggest actions to address E&S risks and impacts that may be implemented during project preparation and implementation. The Consultant based shall assist the client in preparing application and supplementary reports for obtaining requisite clearances or permits.

j) Baseline Surveys:

The Consultant will {a} collect information from secondary sources that are relevant to understand the baseline, as well as the design of mitigation measures pertaining to physical, biological and socio-cultural environments; consultant will provide details of sources of these secondary data in ESIA report {b} carry out site visits and identify environmentally sensitive features locations within direct or indirect project area and document them on the base maps to identify conflict points with preliminary designs.

All surveys shall be carried out in compliance with the (Insert name of State) GoI standards/guidelines/norms. However, extent of duration of baseline survey may vary. Wherever such guidelines/norms are not available, the techniques, tools and samples employed for the surveys shall conform to the International practices. Whenever directly relevant secondary data is available, these should be used, while indirectly relevant data should be verified through primary survey. Environmental quality (air, water, noise and vibration) monitoring shall include an adequate number of samples, as established on a sampling network to provide a representative picture of pollution levels in sub-project areas. Additional data for sensitive environmental / ecological receptors, if any, shall be collected such as to analyze and predict the possible risks and impacts to a degree and precision of acceptable standards. The surveys shall necessarily cover inventory of trees, historical/cultural sites, construction material sources, settlements, land use, sensitive receptors etc. in project areas, including preparation of tree cutting schedules and forest land diversion case if involved. Further, additional specialized surveys, such as biodiversity assessment survey, and hydrological surveys shall be conducted, if and when required as part of environmental scoping.

The Consultant shall collect information on all regionally or nationally recognized environmental resources and features within the project area, which shall be clearly identified and studied in relation to activities proposed under the project. These will include all protected areas (national parks, wildlife sanctuaries, reserved forests, biosphere reserves, wilderness zones), unprotected and community forests and forest patches, all wetlands, and surface water bodies.

The Consultant shall consolidate all such information on maps in digital database and superimposed with the sub-projects area.

k) Social Impact Assessment

i. Consultations with stakeholders: The Consultant shall carry out meaningful consultations as outlined under ESS 10 with each stakeholder category and present a Stakeholder Analysis of local stakeholders such as local government, associations, who could play a role in the project implementation process (including R&R) with positive/negative influence on the outcomes. These consultations will also cover issues relating to Gender Based Violence (GBV) and GBV-related concerns about the project. It shall record and analyze peopleôs perception of the project, its adverse impacts, and minimum acceptable mitigation measures (relocation options, if any are required assistance offered) that will enable them to cope with displacement or loss of livelihoods ï temporary or permanent in nature, if any. As part of this process, disadvantaged and vulnerable groups will be identified and separate focused group discussions (FGDs) with such groups besides women will be held.

ii. In case of tribals, the Consultant shall conduct consultations and identify if the project impacts are result in loss of land, livelihood, relocation; and has significant impacts on indigenous peoplesô cultural heritage that is material to their identify and /or the cultural/ceremonial/spiritual aspects of their lives and in such cases obtain Free Prior and Informed Consent of the affected indigenous persons/tribals. In case FPIC cannot be ascertained, the project will not proceed with those sub-projects/activities. The same shall be recorded in the ESCP. Summarize the concerns, suggestions by stakeholder for consideration by project authorities during design.

iii. Quantitative and qualitative surveys: This shall involve identification of adverse (on the finalized alternative) and positive impacts of the project through consultations and quantitative survey. Survey should cover all categories of impacted persons and results of the Census and Socio-economic survey on affected households should be presented segregated by gender and social category. It will help to establish impact categories that are critical to the determination of potential adverse impacts and help analyze the relative vulnerability of, and risks to, the affected communities. The assessment should analyse key impacts on different groups of people (such as land owners, small, farmers; small businesses, shopkeepers; commercial establishments, SCs/STs, disadvantaged and vulnerable groups and women[3]), and communities (common properties, lands). The impacts should be segregated by pre-construction and construction stage (such as disruption, loss of access, loss of livelihood, debris disposal following hill cutting, impact on host community, if any, issues arising due to labour influx, etc.). Besides all the affected community assets such as worship place, drying up of drinking water source, impacts to schools and the community facilities need to be recorded. As some of the districts and possibly some sub-project corridors have presence of scheduled tribes, and if the Screening exercise indicates the need, the SIA needs to assess the current socio-cultural living style of the tribal communities in line with the World Bankôs ESS 7 and ascertain required measures.

iv. Entitlement policy and assistance package: In context of the already developed Resettlement Policy Framework for this project, analyze state specific approaches to land taking,

[3] In accordance with Bank Directive on Addressing Risks and Impacts on Disadvantaged or Vulnerable Individuals or Groups

compensation and assistances along with national acts. The consultant should further assess the approach to better understand the processes and also whether the method meets the requirements of ESS 5. Also, the gap analysis between this method and ESS5 requirements will cover the treatment of non-title holders, such as squatters and encroachers. Hence, based on discussions with (Insert name of State) and WB, the study will help establish the criteria for eligibility of compensation and other resettlement assistance and present entitlements by type of impacted assets and category of impacted persons including disadvantaged and vulnerable persons.

v. Identification of gender concerns/gaps: In order to meet the Bankôs requirements on gender, the project should carry out sub-project specific assessment of projects through gender perspective; hold separate FGDs with women households (amongst affected households) and those likely to be affected in case of Dam emergencies; and women site engineers; and explore areas for potential intervention. The exercise is expected to formulate commensurate actions relating to gender and help devise suitable monitoring indicators.

vi. Identify modes for citizen engagement: As persons and communities would be impacted/influenced by the project activities, identify all the relevant stakeholders, revise the preliminary stakeholder analysis and plan, to identify means to engage with citizen/communities in respect to design and mitigation measures, monitoring, grievance mechanisms.

vii. Institutional Capacity Building & Training: Assess the role of the key institutions, departments, and stakeholders involved in the project and describe their roles, responsibilities and relationship with the project activities in specific relation to implementation of RAP, TDP. Provide an assessment of the strengths, weaknesses and opportunities for capacity enhancement to address social and gender issues.

viii. Grievance Redressal Mechanism and procedures: Assess existing grievance redressal mechanisms (available for DRIP I and DRIP AF and also for the state as a whole) to help develop a GRM as required and outlined under ESS 10.

ix. Labor related aspects: Project will involve: a) Direct workers (Central Water Commission and all IAs); b) contracted workers engaged in construction works including migrant skilled workers, consultancy services firms (for preparing DPRs, RAP & IPDPs where required, SEPs and EPPs); c) primary supply workers could include suppliers of equipment necessary towards the many structural and non-structural interventions. At present due to the nature of the project, involvement of community workers is not envisaged, however there could be community volunteers involved particularly in the operationalization of the EPPs.

Preparation of ESIA will assess the following aspects towards preparation of Labor Management Procedure: applicability of labour laws and, non-discrimination and equal opportunity, potential risks of child labor and forced labor, including the workers to be brought to the project by brokers (sub-contractors); grievance mechanism to all workers, occupation health and safety aspects, etc. Assess applicability of labour laws and, non-discrimination and equal opportunity, potential risks of child labor and forced labor, including the workers to be brought to the project by brokers (sub-contractors); grievance mechanism to all workers, occupation health and safety aspects, etc. The assessment to be carried out in accordance with óESS 2 ï Labor and Working Conditionsô will scope out impact and absorptive capacity on host communities to address risks that arises from labour influx and identify measures that need to be incorporated in the bid documents for the civil works contractor.

x. Gender Based Violence aspects: To minimize the risk of GBV (and Sexual Exploitation and Abuse), the consultant shall: (a) Assess the overall GBV risks in the project area based on (i) existing gender country diagnostics/country action plans; (ii) data on partner/non-partner physical violence against women; (c) cultural practices vis-à-vis women (early marriage, physical practices); and (d) information obtained from consultations carried out as part of consultations with stakeholders; b) Prepare a mapping of GBV service providers in the project area that indicates the type of services, including formal service providers (i.e., hospitals, NGOs, government offices) and informal (i.e., womenôs groups, community elders, etc). The mapping should indicate any capacity constraints of informal GBV service providers; c) Confirm the GBV risk assessment rating provided by the World Bank for the project and assess the capacity of the implementing agency to supervise GBV mitigation measures; d) Identify GBV mitigation measures linked to activities to manage labor influx (including specifications for placement of worker camps, signage, infrastructure for men and women, etc.); e) Consult with womenôs groups, groups that advocate for children and adolescent rights, and other stakeholders.

These consultations should feed into the identification of potential GBV issues and possible prevention and mitigation strategies. As part of these consultations, those affected by the project should be properly informed of GBV risks and project activities to get their feedback on project design and safeguard issues. Community consultations should never directly ask about experiences of GBV and should follow ethical protocols; f) Depending on the project risk rating, prepare a draft GBV Action Plan and Accountability and Response Framework which provides details on (i) available service providers; (ii) the responsibilities of the Grievance Redress Mechanism to handle complaints and link to service provision; (iii) monitoring arrangements and responsibilities; and, (iv) awareness raising strategy in the local community (stakeholder engagement plan); g) Identify potential actions or initiatives to support GBV broader prevention in the project area such as: (i) need to broader support to health services or for health provision; (ii) youth engagement; or (iii) behaviour change communication, among others. The draft ESIA report shall articulate the findings of the targeted consultations and GBV mapping and present a matrix off issues and recommendations of the consultant to mitigate the critical GBV issues, including the engagement third party monitoring, as required.

l) Environmental and Social Risk and Impacts and Mitigation Measures:

The Consultant shall determine all relevant direct, indirect and cumulative environmental and social risks and impacts of the project related to key issues identified through the scoping, such as, but not limited to (a) construction impacts such water and soil contamination from wastewater generated from construction/workers camps; spillage and handlings of chemical and hazardous materials; damage to vegetation; disposal of spoils ; air pollution due to fugitive dust from repair/ rehabilitation work , and emission from operation of vehicle, equipment and plants; cutting of trees reduction of natural resources base and degradation due to extraction/quarrying; land degradation from project induced development; change in aesthetic of landscape; impacts on archaeological and historical sites/assets, culturally and socially important common properties, religious properties/sites, sacred groves on or near the project; distress of public/community due disruption of utility services; and likely direct, indirect and induced impacts on ecological functions of forests, other natural habitats including protected areas; community health and safety risks and issues; (b) occupational health and safety risks and issues during construction and operation; (c) operation stage safety concerns and risks, (d) environmental impacts during operational e.g. air pollution, noise, traffic safety, and impacts on wildlife, etc.

The Consultant shall (a) identify feasible measures for resource efficiency i.e. energy use, water usage and management, and raw materials so as to minimize projectôs foot prints on finite natural resources; (b) estimate carbon and GHG emissions due to implementation of project, identify feasible measures

for reducing such emissions, creating carbon sink, and climate resilient measures to suite local needs and challenges.

The Consultant for identified environmental risks and impacts shall prepare Environmental and Social Management Plan, in accordance to ómitigation hierarchyô, which will (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements.

m) Analysis of Alternatives

The Consultant while doing analysis of alternatives shall compares feasible alternatives to the proposed project site, technology, design, and operationð including environmental and social risks and impacts ñwith projectò and ñwithout projectò scenarios. The Consultant shall quantify and provide estimated budget for the alternative mitigation measures; and suggest institutional, training and monitoring requirements for implementation.

The Consultant shall suggest on efficient use of environment friendly construction materials and technologies, energy and resource efficiency, water conservation and management, reduction of GHG emission and increasing carbon sink, climate resilient measures etc. The Consultant to the extent possible shall attaches economic values where feasible.

Deliverables at this stage:

1. Environmental & Social Assessment Report (Detailed ESIA).
2. GBV Mitigation Framework

TASK D: PREPARATION OF SUB-PROJECT SPECIFIC PLANS & INSTRUMENTS

- Based on the environmental and social impacts assessed, ESMPs, RAP, TDP (if required) and other plans as required for confirming to ESS1 to ESS10 for each dam shall be prepared that consists a set of mitigation, monitoring, and institutional measures required to eliminate/address adverse environmental and social risks and impacts. These instruments shall be prepared as per the requirements of WBôs ESSs and should identify responses to potentially adverse impacts; determine requirements for ensuring timely responses; and describe the means for meeting those requirements. The technical details for each mitigation measure shall include the type of impact to which it relates, the conditions under which it is required (e.g., continuously or in the event of contingencies), as well as preliminary design, equipment descriptions, and operating procedures, as appropriate.
- Estimate the impacts and costs of the mitigation measures for each of the activities separately and of the institutional and training requirements to implement them. Assess compensation to affected parties/persons for impacts that cannot be mitigated. However, this assessment and subsequent compensation plan are to be more strongly addressed in the Resettlement Action Plan document.
- The Consultant shall recommend feasible and cost-effective measures to prevent or reduce significant negative impacts to acceptable levels. Apart from mitigation of the potential adverse impacts on the environmental component, the ESMP shall identify opportunities that exist to induce positive impacts of project. This shall include but not limited to the enhancement of specific locations as water bodies; enhancement of community and cultural assets, fisheries productivities, etc. Residual impacts from the environmental measures shall also be clearly identified. Include measures for emergency response to accidental events (land slide during construction or operation.), as appropriate
- The ESMP shall include: a) specific or sample plans, such as for management and redevelopment of quarries, borrow areas and construction camps; b) detailed specification,

bill of quantities, execution drawings and contracting procedures for execution of the environmental mitigation and enhancement measures suggested, separate for pre-construction, construction and operation period; c) actions identified based on assessment of potential quarry sites if any are identified, conditions of primary supply workers with a focus on child, forced labor and OHS; and d) good practice guides that relates to construction and upkeep of plant and machinery.

- Responsibilities for execution and supervision of each of the mitigation and enhancement measures shall be specified in the ESMP.
- To monitor implementation of ESMP, for different stage of project (pre-construction, construction, post construction), the Consultant shall identify the performance indicators, approach of monitoring, and frequency. The performance indicators should include both quantitative and qualitative types, but the Consultant shall consider practicality aspect and provide approach for monitoring each identified indicator.
- The Consultant shall also prepare a detailed management plans with specific actions to be taken by the contractors and sub-contractors with regard to working conditions and management of workers, management of chemical, hazardous and non-hazardous material/waste, noise, occupational health and safety of workers and community, labor influx (workers accommodation, HIV/ AIDS prevention etc.) and other key impacts under contractorsô control.
- The ESMP shall specify the environmental supervision, monitoring and evaluation requirements. The monitoring program shall specify performance indicators, monitoring parameters (air, water, noise, soil and vibration), reference standards, monitoring method, frequency, duration, location, and reporting on progress and results of mitigation. In addition, the program will specify what action should be taken and by whom in the event that the proposed mitigation measures fail, either partially or totally, to achieve the level of environmental protection expected. An outline of the contents of the EMP to be included in the projectôs Operational Manual should be provided along with environmental/social protection clauses for contracts and specifications.
- ESMPs should include provisions/actions relating to construction stage social impacts, gender mainstreaming, citizen engagement, management of labor influx[4], HIV/AIDS and gender-based violence, etc.
- The ESIA shall highlight the special environmental clauses (SECs) to be included in the Tender Document under General/Particular Specification. These clauses are aimed at ensuring that the Contractor carries out his responsibility of implementing the EMP and other environmental and safety measures. The EIA shall also include a health safety plan of the project to be included in the tender document.
- The Consultant shall provide assessment on existing institutional/organizational status to support timely and effective of environmental and social project components. The findings shall be basis to identify measures and actions to strengthen environmental and social management capability in (Insert Name of Implementing Agency). The ESMPs shall describe the implementation arrangement needed for the project, especially the capacity building proposals including the staffing of the environment unit adequate to implement the environmental mitigation and enhancement measures. For each staff position recommended to be created, detailed job responsibilities shall be defined. Equipment and resources required for the environment unit, training plan and modules shall be specified, and bill of quantities prepared. All key actions identified essential for capacity development for effective implementation of projectôs E&S mitigation measures shall be linked with ESCP.
- The Consultant in the ESMP shall provide implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project

[4]Guidance note on managing the risks of adverse impacts on communities from temporary project induced Labour Influx, 2016

implementation plans; and estimated cost and sources of funds for implementing the ESMP (integrated into the total project cost tables).

- The ESMP prepared shall be incorporated into the ESCP. The Consultant shall ensure implementation costs of mitigation measures and actions are integrated into the projectôs overall planning, design, budget, and implementation.
- Prepare Dam Safety Assessments: Dam Safety Assessment Reports will be prepared, with recommendations.
- Prepare Resettlement Action Plan: The scope and level of detail of the resettlement plan vary with the magnitude and complexity of resettlement. The plan shall be prepared based on detailed Census and Socio-economic survey that should cover the impacts on the community and other adversely affected groups and provides mitigation measures[5].
- Prepare Tribal Development Plan: The project shall cover 18 states, of which many have significant amount of tribal population such as Odisha, Chhattisgarh, Madhya Pradesh, Meghalaya, West Bengal, Manipur, etc. Many of these same states also have areas that are declared as Schedule V and VI areas as defined in the Constitution. Commensurate instruments, such as Tribal Development Plans (TDPs), will be developed for sub-projects identified before appraisal. FPIC would be undertaken in sub-projects involving impacts on land, livelihood, cultural heritage and in cases requiring relocation and in case FPIC cannot be ascertained, the project will not proceed with those activities. On the basis of the social assessment and in consultation with the affected Indigenous Peoplesô communities, Consultant shall prepare an Tribal Development Plan that sets out the measures through which the project will ensure that (a) tribals affected by the project receive culturally appropriate social and economic benefits; and (b) when potential adverse effects on tribals are identified, those adverse effects are avoided, minimized, mitigated, or compensated for.[6]

Additionally,

- Review and recommend updates to Resettlement Policy Framework based on ESIA study findings, where appropriate.

Deliverables at this stage

1. Labor Management Procedures[7]
2. Stakeholder Engagement Plan based on overall Stakeholder Engagement Framework
3. GBV Mitigation Plan (if required) based on the overall GBV Mitigation Framework
4. Dam Specific ESMP i.e. RAP, EMP, TDP (if required)
5. Pollution Prevention, Resource Conservation, occupational health and safety and community safety plan, biodiversity conservation and sustainable management plan
6. Update recommendations to Resettlement Policy Framework for overall DRIP 2

Task E: Public Disclosure

The Consultant will prepare a plan for in-country disclosure, specifying the timing and locations; translate the key documents into local language, such as the executive summary of Environmental and Social Impact Assessment, Environmental and Social Management Plan, RPF, RAP, TDP, or any other documents in local language and draft advertisement for the newspaper announcements for disclosure; and help the client to place all the related Environmental and Social Impact Assessment reports on the clientôs website. The draft ESIA and management plans should also be available in a public place accessible to affected groups and local NGOs for appropriate consultation.

[5] Indicative contents of RAP placed at Annexure 10
[6] Indicative content of TDP is placed at Annexure 14
7 Outline placed at Annexure 14

Relevant materials will be provided to affected groups in a timely manner prior to consultation and in a form and language that is understandable and accessible to the groups being consulted. The Consultant should maintain a record of the public consultation and the records should indicate: means other than consultations) eg, surveys used to seek the views of affected stakeholders; the date and location of the consultation meetings, a list of the attendees and their affiliation and contact address; a video of the consultation workshop and summary minutes.

Formal consultation shall be organised prior to ESIA preparation and after ESIA preparation. The public consultation input shall be duly addressed in the ESIA/mitigation measures.

Task F: Environment, Social, Health and Safety Requirements for Bidding Document

Based on the special environmental clauses (SECs) identified from the EIA study ï which require to be included in the Bidding documents, the Consultant shall prepare detailed specifications for environmental, social, health and safety (ESHS) requirements for the bidding documents. These would also cover (Insert Name of Implementing Agency)ôs ESHS policies that will apply to the project, minimum requirements for bidderôs code of conduct, and requirement of contractors ESHS staff and other aspects identified as relevant to civil works.

Task G: Other Assistance to the Client

The Consultant shall support the client to furnish any relevant information required for obtaining clearance from various state and central government agencies where required. This may include {a} assisting the client in the submission of application for the Clearance of Reserved or Protected Forests to the State Forest Department, which shall include marking boundary pillar of proposed right-of-way, conduct tree counting survey and its enumeration, preparation of forest land diversion map and delineate its boundary by conducting DGPS survey, coordinate verification of trees for cutting and forest area to be acquired, presentation of case before MoEF& CC, preparation of forest diversion proposal, coordination and follow-up with forest departments till obtaining FC approvals; {b} completion and submission of the MoEF&CC questionnaire for Environmental Appraisal for the project, if applicable; {c} assistance in presentation to the Wildlife Board of the MoEF&CC in obtaining clearance for any area passing through the Wildlife Reserves or Sanctuaries or other protected areas, if any; {d} assistance in submission for any other clearance requirements with respect to the environmental components relevant to the project; {e} to prepare presentation, brochures, pamphlets for any kind of stakeholder consultation and disclosure; {f} consultation with WB Mission as and when required upon instruction of client; {g} to attend all progress review meetings with Team Leader as and when called by the client as well as to prepare progress review reports.

Task H:Training of Client's Staff

The Consultant shall conduct training for the client at various levels. The training should as far as possible be conducted in the (Insert Name of Implementing Agency) office at X. This is to ensure that the knowledge, skills and perspectives gained by the Consultant is transferred to the client so that these can be utilized effectively during project implementation. The training should be focused (a) borrowers responsibilities and ESSs requirements of the World Bank and (b) on ESMPôs covering both central and field offices. The Consultant shall develop a plan for training the clientôs staff. The plan should specify the types of training, the participants for each training type, the number of sessions required, the duration of each session and when it should be conducted. At the end of the training, when the ESMPs are ready, brief reports shall be prepared for the training conducted and observations relevant for future training, if any.

Task I: Co-ordination with DPR Consultant:

The Consultant shall at the direction of (Insert Name of Implementing Agency) to ensure absolute coordination and shall include but not limited to the following as part of the scope of work:

- Coordination with Consultant hired for DPR and preparation of detailed design report.
- Provide assistance to (Insert Name of Implementing Agency) as appropriate in preparation of the project;
- Develop mechanism to establish a strong co-ordination with the other project-preparation /management Consultant appointed in the project;
- Work under the overall supervision of (Insert Name of Implementing Agency) will facilitate the consultancy in contacting relevant officials, departments and agencies;
- Ensure the timely flow/exchange of information and documents with DPR Consultant and stakeholders of the project;

5.0 Inputs to be provided by the Client

The Client shall provide all necessary and reasonable support to the Consultant to collect secondary data by issuing authorization letters. The Consultant will be responsible for any translation of documents and for processing of data. The Project Director or his representative will liaise with the Consultant for all activities and participate as possible in the study. The (Insert Name of Implementing Agency) will provide the following reports:

- ESDD report of the Dam sub project
- All relevant documents related to the specific projects and any other background documentation and studies, available with (Insert Name of Implementing Agency)
- Making all necessary arrangements for supporting the work of the Consultant(s), by e.g. facilitating access to government authorities and other project stakeholders and infrastructure facilities.

Reporting Schedule

Reporting Requirements/ Deliverables: -

SN	Deliverables	No. of copies	Due date for submission from the start date of the service (Months)	Remarks
	i. Inception report: methodology and site visit plans , Primary data collection plan for detailed ESIA.			
	(a) Scoping Report with outline of different required environmental management plans, & RAP and TDP (if required)			
	(b) Preliminary Stakeholder Engagement Plan (SEP)			
	(c) Review Report of Feasibility stage reports			
	i. Update inputs to Resettlement Policy Framework ii. Tribal (Indigenous) Peoples Planning Framework iii. Draft Labor Management Procedure			

SN	Deliverables	No. of copies	Due date for submission from the start date of the service (Months)	Remarks
	Submit for X Dams and related interventions/associated facilities			
	i. Dam Safety Assessments ii. Environment and Social Impact Assessment Report			
	iii. Resettlement Action Plan iv. Indigenous People Development Plan (if required) v. Sub-project specific ESMP vi. Other Environmental Plans such as pollution prevention and resource conservation plan, Biodiversity conservation and sustainable management plan etc.			
	i. Updates to Stakeholder Engagement Framework (SEF) ii. Final Labor Management Procedure by IA			
	iii. Gender Based Violence Mitigation Framework			
	Translation of documents for disclosure by (Insert Name of Implementing Agency)			
	Review, update/revise the RPF and TPPF			

Terms of Payment

The mode of payments to be made in consideration of the work to be performed by the Consultant shall be as follows:

SN	Deliverables	No. of copies	Due date for submission from the start date of the service (Months)	Payment Schedule (%)

Note: all above payments shall be made after review and approval by the client and the World Bank and submission of pre-receipted bills by the Consultant in quadruplicate for respective stages.

Review of reports: -

A review committee (to be restricted to Five members) consisting of following officers of the clientôs Department will review all reports of Consultant (inception, progress, intermediate and draft final)

and suggest any modifications/changes considered necessary within 15 days of receipt.

- Chief Engineer-Cum-Project Director (Insert Name of Implementing Agency)
- Superintending Engineer (Insert Name of Implementing Agency)
- Nodal Officer Environment ((Insert Name of Implementing Agency)
- Environment and Social development officers (Insert Name of Implementing Agency)

Duration of the Assignment:

The total duration of the assignment would be about 6-12months.

Consultant Staffing and Key Qualifications

The Consultant must be a corporate firm or a consortium of firms that satisfies the following criteria:

- Possession of adequate and proven experience in ESIA and CIA;
- Possession of adequate, qualified and experienced key personnel and logistic resources to carry out the assignment;
- Knowledge of India, and an appropriate skill mix within the team to carry out field work, interact with project stakeholders, and produce written materials in English
- Knowledge of, and previous experience carrying out environmental and social studies in accordance with, World Bank safeguard policies.

The Consultant shall propose and justify the range of disciplines to be included in the core project team and the complementary skills of the short-term specialists. The inputs by all specialists should be clearly indicated as it is anticipated that a substantial part of the work program is carried out by the firms or individuals subcontracted locally. It is expected that the core project team will include, but not necessarily confined to, the following key specialists:

- *Team leader*, an environmental impact assessment specialist with 10 years of experience including experience in hydropower projects. Knowledge and experience with World Bank safeguard policies will be required. Experience with Indian legal requirements, and experience with other multinational requirements, also desired. Demonstrated ability to integrate social and environmental elements with infrastructural details of the Project.
- *Senior aquatic ecologist,* with 7+ years of national /international experience in aquatic ecology impact assessment and management in Himalayan contexts. Demonstrated ability to work as part of a multi-disciplinary team.
- *Senior terrestrial ecologist,* with 7+ years of experience in terrestrial ecology impact assessment and management issues related to infrastructure projects, including in the hydropower sector.
- *Senior Ornithologist* – with 7+ years of international experience assessing the impact of hydropower projects on migratory and other species. Should have knowledge of field work experience developing mitigation programs related to hydropower projects and particularly transmission lines for migratory and other species of birds.

- *Communications and stakeholder engagement specialist* with knowledge of India and prior experience managing engagement and communications programs with local communities and stakeholders on internationally financed projects. Specific knowledge and prior experience in the hydropower sector, and with World Bank financed projects, is strongly desirable.

- *Resettlement specialist,* who has knowledge of World Bank and Indianresettlement policies and who has carried out resettlement and livelihood development planning in hydropower projects.

- *Gender specialist,* who has knowledge of World Bank and Indian policies on gender and who has demonstrated working experiences carrying out similar assignments in internationally financed operations.

- *Senior Environmental Engineer* – with 7+ years of international experience in construction related impacts associated with construction of large/complex hydropower projects in sensitive ecosystems, especially including construction and operation of access roads, tunnels, large dams, large construction camps, quarry sites, spoil disposal sites etc.

- *Hydrogeological engineer,* with suitable experience conducting technical field surveys on soil sediments, water quality etc., and with experience in sediment management and erosion control programs for hydropower operations.

- *Additional technical specialists* with appropriate qualifications and experience at the national level (supplemented by additional international experience as required) in hydrology, geology, environmental engineering, forestry and watershed management, climate change, archaeology, anthropology or other social sciences, and public health, among others as required to complete the tasks described in these Terms of Reference.

The Consultant shall name individuals to participate in specified roles within the project team and provide full curricula vitae and any other information considered relevant by the Consultant. The Consultant shall name the project leader, the deputy team leader, the other core team members and key short-term specialists, and provide an assurance that all members of the proposed team will be made available as specified in the proposal, if the Consultant is named.

Guidance Frameworks to meet requirements for relevant ESS

Annexure 7: GBV/SEAH Risk Mitigation Framework (ESS 1)

Understanding GBV

GBV is an umbrella term for any harmful act that is perpetrated against a personôs will and that is based on socially ascribed gender differences. GBV includes acts that inflict physical, mental, sexual harm or suffering; threats of such acts; and coercion and other deprivations of liberty. GBV also affects men, boys and sexual minorities or those with gender-non-conforming identities. Disproportionately, however, GBV affects women and girls throughout their lifecycle, with profound, long-term impacts on well-being, agency [1], and self-actualization, including educational achievement, livelihood and employment prospects, physical and emotional health, involvement in civic activities, and many more. GBV greatly undermines the ability of survivors, and often their families, to engage in meaningful and productive lives. The key definitions of GBV are described in Annexure 5.1.

35% of women worldwide have experienced either non-partner sexual violence or physical and/or sexual intimate partner violence (IPV) (WHO 2013), both manifestations of Gender-Based Violence. Violence against women in India is systematic and occurs in the public and private spheres. It is underpinned by the persistence of patriarchal social norms and inter- and intra-gender hierarchies. Women are discriminated against and subordinated not only on the basis of sex, but on other grounds, such as caste, class, ability, sexual orientation, tradition and other realities. Women are subjected to different forms of violence including intimate partner violence, sexual violence, early marriage, forced marriage, deprivation of freedom of movement and of choice.

GBV in Major Infrastructure Projects

Large infrastructure projects often involve major civil works[2] that require labour force and associated goods and services that cannot be fully met by local supply. In such cases, workers are often brought in from outside the project area. Under DRIP-2, large scale construction activities are envisaged only for a few sub-projects[3]. However, all project interventions would create a presence of migrant workers due to the likely inability of local communities to fulfil the need for skilled manpower requirement. Other than this, there will also be a floating population of suppliers and transporters for the whole duration of the projects. This influx of workers can exacerbate existing GBV risks and even create new ones. Major civil works can exacerbate the risk of GBV in both public and private spaces by a range of perpetrators in many ways, for example[4]:

- Projects with a large influx of workers may increase the demand for sex workð even increase the risk for trafficking of women for the purposes of sex workð or the risk of forced early marriage in

[1] At the individual level, a*gency* means the capacity to make decisions about oneôs own life and act on them to achieve a desired outcome, free of violence, retribution, or fear.

[2] Major civil works include construction, maintenance and/or upgrading of infrastructure (transport, energy, water & sanitation, irrigation and urban infrastructure, school or hospital construction, etc.) and related supervision oversight, as well as technical assistance activities related to such projects.

[3] Project Appraisal Document of Second DRIP

[4] Good Practice Note: Addressing Gender Based Violence in Investment Project Financing involving Major Civil Works, 28 September 2018, the World Bank group.

a community where marriage to an employed man is seen as the best livelihood strategy for an adolescent girl.[5] Furthermore, higher wages for workers in a community can lead to an increase in transactional sex. The risk of incidents of sex between laborers and minors, even when it is not transactional, can also increase.

- Construction workers are predominantly young males, typically separated from their families on a construction job for extended periods of time. They can therefore act outside their normal spheres of social control, which can lead to a spectrum of unacceptable and illicit behaviours, including sexual exploitation and abuse of women and girls and illicit sexual relations with minors from the local community.
- Projects create changes in the communities in which they operate and can cause shifts in power dynamics between community members and within households. Male jealousy, a key driver of GBV, can be triggered by labour influx on a project when workers are believed to be interacting with community women.

Legal and Policy Environment for Women's Safety

International Instruments: The international legal and policy framework establishes standards for action by countries to meet their legal obligations and policy commitments to address violence against women. Some of the key International instruments[6] for the protection of women include the following:

- **United Nations General Assembly, Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW):** Under CEDAW, States ensure through competent national tribunals and other public institutions the effective protection of women against any act of discrimination and refrain from engaging in any practice of discrimination against women and to ensure that public authorities and institutions shall act in conformity with this obligation.
- **Fourth World Conference on Women, Beijing Declaration and Platform for *Action:*** The Platform for Action states that ówomen may be vulnerable to violence perpetrated by persons in positions of authority in both conflict and non-conflict situations. Training of all officials in humanitarian and human rights law and the punishment of the perpetrators of violent acts against women would help to ensure that such violence does not take place at the hands of the public officials in whom women should be able to place trust, including police and prison officials and the security forcesô (Para. 121).
- **United Nations General Assembly, Resolution 52/86 on Crime Prevention and Criminal Justice Measures to Eliminate Violence Against Women**
- **World Bank's Guidance note on Management of Labour Influx, 2016.** The document provides guidelines to address issues and risks arising from influx of migrant labour leading to gender-based violence, forced labour etc.

National Instruments

- India has signed and ratified **Convention on Elimination of Discrimination against Women (CEDAW)[7].** Since then, the national policy for Women 2016 and other policies and amendments on acts has been reflecting the principles highlighted in the related international conventions. The goal of this Policy is to bring about the advancement, development and empowerment of women.
- **The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013,** aims to prevent and provide redressal of complaints of sexual harassment. One of the

[5]As per Demographic & health Survey (2015-16), among the women now in the age between 20-49, 36.9% were married before the age of 18. See https://dhsprogram.com/what-we-do/survey-Types/dHs.cfm

[6]Gender based violence: A guide for capacity building of gender responsive police service delivery: Institute for Development & Communication / International Development Research Centre

[7]http://treaties.un.org/

main provisions in this act is that it calls for constituting an Internal Complaints Committee at each office or branch with 10 or more employees/workers.

Gaps in Gender Institutional and Legal Framework

Despite the above-mentioned positive developments, deeply entrenched patriarchal attitudes, and the ineffective implementation of those laws and the allocation of financial resources to support their execution adequately is reportedly lacking in many instances as outlined below:

- Sexual violence, including rape and sexual harassment, is widespread across the country and perpetrated in public and private spaces. There is a general sense of insecurity for women in public spaces, especially in urban settings. Women are easy targets of attacks, including sexual violence, whether while using public transportation or sanitation facilities or on the way to collect wood and water.
- Although the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 Act seeks to prevent the revictimization of victims who are unable to provide adequate proof or substantiate a complaint, in practice, women are reluctant to raise complaints against their male colleagues especially seniors. There is also lack of sensitization among staff with regards to the act and lack of clarity of roles and responsibilities of the ICC members[8]

Good Practices for Assessing, Addressing & Monitoring GBV

Finding solutions to reduce and respond to GBV is a critical due to the high prevalence and social acceptability of violence against women and girls. The World Bank Good Practice Note[9] provides a comprehensive understanding of the nature and kinds of GBV (see Annexure 5.2). The GPN establishes an approach to identifying risks of GBV, in particular sexual exploitation and abuse and sexual harassment, that can emerge in major infrastructure projects with civil works contracts. The GPN builds on World Bank experience and good international industry practices, including those of other development partners.

Methodology of addressing GBV

The GPN outlines the three Step that need to be undertaken during project preparation and implementation[10] as described below.

- **Identify and assess** the risks of GBV during preparation as part of exercise of undertaking ESDD/ESIAs including social and capacity assessments and include measures for their mitigation in project design. Ideally, this is done during project preparation, with the understanding that GBV risk assessment is a continuous process and should take place throughout the project life cycle as GBV can occur at any moment.
- **Address** the risks during project implementation by identifying and implementing appropriate GBV risk mitigation and monitoring measures ï that are commensurate to the risk level, on an ongoing basis
- **Respond** to any identified GBV incidents, whether related to the project or not, ensuring that effective monitoring and evaluation mechanisms are in place to report on such incidents and to monitor follow up.

Measures to address the Gender Gaps

Gap: Victims not reporting due to fear of reprisal and social stigma

[8]Based on discussions with ICC members of IA

[9]Good Practice Note: Addressing Gender Based Violence in Investment Project Financing involving Major Civil Works, 28 September 2018, the World Bank group.

[10]Good Practice Note: Addressing Gender Based Violence in Investment Project Financing involving Major Civil Works, 28 September 2018, the World Bank group.

Measure: The GRM will be handled by a capable and ethical GBV Service Provider who will be able to offer a suite of services to the survivor (health, legal, security etc). They will establish close ties with various civil departments like police, healthcare, judicial, Anganwadi, Asha Jyoti Kendra etc for their effective functioning. The GBV Service provider, in co-ordination with the GBV specialist within SPMU, will route the complaints to the correct department and follow-up for redressal. Signing of CoCs by all workers and sensitization trainingôs for workers at all levels will also be carried out in the project.

***Gap*:** Sexual Harassment of women in workplace despite of PoSH Act

Measure: ICC committees will be formed/strengthened as described in the action plan.

Assessment of GBV Risk and Capacity to respond

The GBV risk assessment process for DRIP-2 comprised of the following:

i. Review of existing surveys and research available at the national & State level.
ii. Assessment of Area of Impact

S.No.	Areas of impact	Reasons
1	**Women workers at Construction sites**.	○ Since the planned project intervention is expected to take 3 to 5 years, the migrant workforce is required to stay for long durations. It is likely that the workers will come in contact with the local community and vice-versa. With varied cultural and economic backgrounds, the likely interactions between communities and workers may lead to potential GBV risks. ○ Cultural insensitivity towards women and the stigma associated with GBV, makes women silent and/or are skeptical about a sincere and unbiased redressal.[11] ○ Lack of adequate and safe means of commuting to the project site and back. The risks are augmented significantly if travel is required at night. ○ There is lack of awareness of compliance to PoSH Act [12] in institutions. Women staff are often not aware of the escalation matrix (within the organization) for such violations. ○ Absence of Separate toilets for women at sites
2	**Community Women and Girls in adjoining communities**	The project interventions will cause an increased interaction between the staff/workers and the communities and could exacerbate GBV risks as outlined below: ○ The movement of transport vehicles through the residential areas in the villages and towns could make the public places (like markets, schools, playgrounds, access roads etc.) unsafe for women, adolescent girls and children. ○ Some of the project works could take place in the vicinity of the dam or outside and might have interface with communities and for a longer duration
3	**GBV Hotspots – Labor camps**	Labour camps are sometimes negligent in following national labour laws with regards to safety and security provisions for women labourers. The key reasons that lead to incidents of GBV within the labour camps are:

[11] A recent study by Oxfam India across 8 cities showed that 17% of working women in India had faced sexual harassment at work and an overwhelming majority of them did not resort to any formal action against the perpetrator for the fear of ólosing the jobô and óabsence of complaint mechanisms at the workplaceô.

[12] ICC committee to be constituted under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 ("**POSH Act**")

		○ Absence of adequate provisions for sanitation and water. ○ Same toilets and bathing areas for men and women. ○ No doors or broken locks on toilets doors. ○ Absence of creche and lack of privacy for lactating mothers for feeding their children. ○ Inadequate accommodation for women workers; women workers having to sleep in the open in the same area as men. ○ Inadequate lighting in the camps and the toilets. ○ Absence of adequate security personnel in the camp. ○ Lack of knowledge of an escalation matrix and coupled with the skepticism of a fair redressal.
4	**GBV Hotspots Education institutions (including schools, colleges,vocational training centres)**	Children and adolescent girls in all educational institutes in the adjoining communities of the construction site, are susceptible to the risks of GBV perpetrated by the migrant and floating population of workers.
5	**Development of Tourism:**	One of the components envisaged under DRIP 2 is developing of revenue streams including tourism around the water bodies. This has implications on GBV risks on the one hand on local women, adolescent girls and children, and women employed in the tourist industry on the other.

iii. Feed the site specific data into the Risk Assessment Tool for each Dam sub-project and arrive at a score to determine the risk level

Risk Tier	Score out of 25
Low risk	0 ï 12.25
Moderate risk	12.5-16
Substantial Risk	16.25-18
High Risk	18.25-25

iv. Developing a GBV Risk mitigation guidelines for each dam as per the above finding and the actions described in the GBV Risk Mitigation Framework below:

GBV ACTION FRAMEWORK

The steps and measures of the GBV Action Framework are summarized in table below:

Table .1 ACTIONS TO ADDRESS PROJECT INDUCED SEA/SH RISKS – BY LEVEL OF RISK

Key Action to Address SEA/SH Risks	L	M	S	H	By when	By Whom
Include SEA/SH risks in ESDD/ESIAs *(based on visits, risk assessment tool, interactions); No prevalence data or baseline data should be collected as part of risk assessments)*	ã	ã	ã	ã	Preparation	SPMU
Map out GBV service providers /response actors in communities adjoining the projects	ã	ã	ã	ã	Preparation Implementation	SPMU
Include adequately SEA/SH risks, GBV service provider in mitigation plans documents ï Project ESMP, C-ESMP	ã	ã	ã	ã	Preparation	SPMU/Contractor
Develop SEA/SH Prevention and Response Action Plan including an Accountability and Response Framework, as part of the ESMP.	X	X	ã	ã	Preparation	SPMU/Contractor
Inform & Consult those affected by the project, of the SEA/SH risks and project activities, to get their feedback on project design and safeguard issues.	X	X	ã	ã	Through-out project cycle	• GBV Focal Point at SPMU • GBV Service Provider
Address SEA/SH-related issues in the SEP of the project to keep the local communities and other stakeholders informed about the projectôs activities	◯	◯	ã	ã	Through-out project cycle	• GBV Focal Point at SPMU • GBV Service Provider
Create an effective SEA/SH GRM with multiple channels; should have specific procedures for SEA/SH, including confidential reporting with safe and ethical documenting of SEA/SH cases.	ã	ã	ã	ã	Prior to contractor mobilizing.	• GBV Focal Point at SPMU • GBV Service Provider
Ensure GBV Focal Point to support project preparation	ã	ã	ã	ã	Preparation	SPMU
Engage Third Party Monitoring (TPM) organization with experienced GBV staff to monitor implementation of the SEA/SH Prevention and Response Action Plan.	X	X	◯	ã	Preparation	SPMU
Ensure funding is available to SPMU for recruiting GBV Service Providers	X	X	◯	ã	Preparation	SPMU

Key Action to Address SEA/SH Risks	L	M	S	H	By when	By Whom
Clearly define SEA/SH requirements in Bid-documents and also the requirement for a CoC which addresses SEA/SH	ã	ã	ã	ã	Preparation	SPMU
Review C-ESMP to verify that appropriate mitigation actions are included.	ã	ã	ã	ã	Periodic during Implementation	SPMU
Review SEA/SH GMôs reception and processing of complaints regularly to ensure that the protocols are being followed in a timely manner for addressing the SEA/SH complaints arising in the project.	ã	ã	ã	ã	Implementation.	• GBV Focal Point at SPMU. • GBV Service Provider.
Ensure Codes of Conduct are clearly understood and signed by those with a physical presence at the project site; Train project staff on the behaviour obligations under the CoCs and Disseminate CoCs (including visual illustrations) and discuss with employees and local communities.	ã	ã	ã	ã	Upon contractor mobilization	• Contractor. • Consultant. • SPMU Staff.
Train Project workers and local community on SEA/SH	ã	ã	ã	ã	Implementation	• SPMU, • Contractors, • Consultants
Undertake regular M&E of progress on SEA/SH prevention and response activities, including reassessment of risks as appropriate.	ã	ã	ã	ã	Implementation	• GBV Focal Point at SPMU, • GBV Service Provider, • Contractors, • Consultants
Implement appropriate project-level activities such as: • separate, safe and easily accessible facilities for women and men in the place of work and the labour camps. (e.g. toilets should be located in separate areas, well-lit) • display signs that the project site is an area where SEA/SH is prohibited.	ã	ã	ã	ã	Prior to works commencing.	• Contractor (implementation). • GBV Focal Point at SPMU. • GBV Service Provider

√: Action recommended; ◯: Action may be considered; ×: Action not required

The actions are further elaborated below

i. **Designating GBV Focal Point / Hiring GBV Specialists (for Substantial or High risk sub-projects[13]):** Designating /hiring of a GBV specialist in these departments will assist in meeting the necessary GBV requirements and oversee all GBV activities of the project which includes:

- Strengthening of the ICC Committee.
- Working closely with the GBV service providers for developing and implementation of the GBV prevention and response strategy.
- Supervision, oversight, monitoring and reporting of GBV strategy.
- Channelizing the complaint appropriately for redressal (ICC committee in case the perpetrator is a staff member or the contractor for workers on contractorôs payroll).
- Following-up for redressal and either closing the case if the issue is resolved or escalating.
- Develop IEC material in regional language and display adequate number of posters and signages with good visibility, all over the construction site and other hot spots, conveying the participating Stateôs policy against sexual harassment in the workplace; zero tolerance for SEA or SH in the project, and contact persons for escalation and all help line numbers for reporting GBV incidents.
- Supervision and oversight of labour camps to ensure that suitable work and accommodation conditions for migrant women labourers is provided for which is in accordance with country labour laws and WB ESS2. This includes, safety & security issues, child care facilities, health and sanitary requirements and separate toilets for women, gender-equal wage rates and temporary housing for families of labourers during the construction work at the labour camp site with strict compliance to availability of water and sanitation facilities.
- Develop a Code of Conduct for the project and a strategy for implementing it.

ii. **Mapping & Contracting of GBV Service Providers[14]:** GBV Service Providers are critical in addressing any case of GBV that may arise and in assisting the project to proactively prevent GBV cases. Since it is a rehabilitation Scheme and will involve small scale works requiring few labor and will be carried within dam compounds, far away from habitation, GBV risk is likely to be mostly low. For this purpose, after a thorough capacity assessment, SPMU will map and engage a GBV Service Provider/s in the area in case GBV risk is identified as High. For an effective GBV plan execution, GBV service provider engaged with the project, will report directly to the SPMU and will be managed and monitored by the GBV Specialist at SPMU. Broadly the role of the GBV Service Provider is explained below:

- Creating synergies with various actors in community is the key to managing GBV risks. GBV service providers will identify active community members, womenôs groups, Gram Panchayat and other Community Based Organization in the adjoining areas. Stakeholder guidance will be sought to identify existing and potential local GBV risks, and they will be consulted on interventions and risk mitigation measures. Consultations with those working with at-risk groups, will be prioritized to enable understanding of GBV risks and trends in the community.
- The GBV Service Providers will engage in continuous consultations/dialogue with local communities in the projectôs adjoining areas throughout the life of the project. These regular consultations will provide opportunities to share information with communities on project-related risks, reporting, response measures, and in identifying new issues that may be arising with regards to GBV. This means the consultations will have a particular focus on women, children and other at-risk groupsð each of which may require different approaches to enable a safe space for discussion.
- Hot Spots will be identified, and close monitoring of these areas will be done throughout the project life cycle.
- Awareness Raising Strategy will play an important role in the risk mitigation process. GBV Service providers will regularly sensitize stakeholders and citizens about GBV risks

[13] Assessment would be carried out by using the GBV risk assessment tool

[14] For Substantial and High risk operations.

exacerbated in the community by the project intervention and the redressal mechanism devised by the project management. The workerôs CoC, GRM, principle of confidentiality of information, and all ways for submitting the GBV grievances will be explained.

- A GBV GRM will be managed by the projectôs GBV Service Provider and overseen by the GBV Specialist hired at SPMU and CPMU level.
- Multiple channels will be made available (phone numbers of GBV Service Provider, for reporting GBV and checked regularly for proper functioning.
- GBV Service providers will periodically inspect the labour camps for living conditions to be in line with the Labour Laws of India and the Environment and Social Safeguard policies of the World Bank, since such adherence will help reduce risk of GBV in the labour camps, significantly.

iii. Addressing GBV risk and responses to GBV incidents

To properly address GBV risks, Implementing Agency will mandatorily set up GRM for workers and community members, prior to contractorôs mobilization. For GBVð and particularly SEA and SHð complaints, there are risks of stigmatization, rejection and reprisals against survivors. The GRM therefore needs to have multiple channels through which complaints can be registered in a safe and confidential manner.GRM operators should be trained on how to collect GBV cases confidentially and empathetically (with no judgment). The GRM should not ask for, or record, information on no more than three aspects related to the GBV incident[15]:

Accountability and Response Framework

- As illustrated in the diagram below, the GBV survivor can lodge a complaint of SH or SEA through multiple channels like helpline number. The request will be received by the GBV Service provider. Owing to the sensitive nature of the complaint and the need for confidentiality, the GBV Service Provider will log only the following information in their records:
    - Nature of the complaint
    - The age of the survivor
    - If the perpetrator was associated with the project.
- Upon gaining the consent of the survivor, this information will be shared with the GBV Focal point/Specialist in SPMU.
- The GBV Service Provider will support the survivor with all the services needed (medical, paralegal, security, psycho-social, shelter etc), either through its own capabilities or through its institutional linkages.
- The GBV Specialist will be informed about the GBV incident as soon as it happens. Depending on whether it is a staff member or a contracted worker, either the escalation will be made to the appropriate level or the complaint will be sent to the contractor for necessary action.
- Upon redressal, then the GBV Service Provider will be informed by the GBV Specialist so that the case can be marked - ñClosedò in the GRM record, along with the date of closure.

[15]Good Practice Note: Addressing Gender Based Violence in Investment Project Financing involving Major Civil Works,28 September 2018, the World Bank group

INSTITUTIONAL ARRANGEMENT FOR GBV FRAMEWORK IMPLEMENTATION

iv. Code of Conduct and Strategy for Implementation

Code of Conduct defines the mandatory Dos and Donôts expected from each staff member, worker, contractor and supplier/vendor associated with the project and having footprint on the project site. A workerôs Code of Conduct will be introduced and made a part of the employment contract and signed by all. At the time of signing, workers will be explained the required strict compliance of the CoC and the sanctions for a possible breach of the Code (e.g. termination). Refer to Annexure 5.3 for indicative CoC. Implementation of the CoC will be carried out as per strategy outlined in Annexure 5.4.The ñAccountability and Response Frameworkò will be developed by SPMU which defines a mechanism to hold accountable alleged perpetrators associated to the project and timeframe within which the supervisor/contractor is expected to take action.[16] Mandatory trainings (Annexure5.5) for the workforce on: state and department policies on sexual harassment in the workplace; unacceptable conduct toward local community members, specifically women; GBV CoC; ñZero toleranceò for SH and SEA; GRM for ñreporting and responseò of GBV incidents will be conducted regularly.

v. Safeguard document and Contractor's Bid document

The clientôs E&S documents should identify the risk of SEA/SH and propose prevention and mitigation measuresð particularly through the project ESMP ï in accordance with the Table 5.1 above. The project ESMP is usually the foundation for the C-ESMP, which is the plan prepared by the contractor outlining specifically how it will implement the civil works activities in accordance with the project ESMPôs requirements and with the contract.

Embedding SEA/SH requirements in procurement processes is a critical mechanism to ensure legal accountability for addressing SEA/SH in projects. Requisite provisions will be included in the bid documents as well, so that the contractors are aware of all required roles and responsibilities of GBV action plan and accordingly price the bids.

vi. Training

GBV COC Training to workers/ staff at all levels, will broadly cover:

- What GBV (particularly SEA and SH) is and how the project can exacerbate GBV risks
- Roles and responsibilities of actors involved in the project (the standards of conduct for project-related staff captured in CoCs).
- GBV incident reporting mechanism, accountability structures, and referral procedures within the project and for community members.
- Services available for survivors of GBV.

Training modality and frequency for all levels of staff/ workers is indicated in Annexure 5.6.

vii. Monitoring and Reporting

- Monitoring will be integrated into the projects safeguard monitoring framework with a special focus on identified Hot Spots.
- GBV action plans will be monitored during Joint Review Meetings (JRM) by a GBV specialist.
- QPRs will include updates on the status of the GBV activities on the project.
    - GBV GRM Indicators

[16] Accountability and Response Frameworkò outlines the disciplinary action for violation of the CoC by workers. It is essential that such actions be determined and carried out in a manner that is consistent with local labour legislation and applicable industrial agreements, otherwise there is risk that the CoC will not be implemented effectively.

- Number of GBV cases received
- Number of GBV cases resolved
- Time taken to resolve

- GBV Activities indicators
  - Successful implementation of agreed GBV Action Plan.
  - Number of training courses related to GBV delivered.
  - Percentage of workers that have signed a CoC.
  - Percentage of workers that have attended the CoC training.

viii. Supervision and Oversight

The supervision of Contractors on civil works under DRIP-2 projects shall be done by a Dam Authorities (Chief Engineer). This section outlines activities that can be incorporated into the project to make supervision and oversight more proactive. Effective oversight requires various actors with additional ones needed in higher risk projects. All entities involved - supervision consultants, PMC, SPMU, etc. must have clear roles and responsibilities throughout the implementation of the project. All those involved in GBV activities should have appropriate training and skills for the tasks assigned to them.

ix. Budget

Budgetary provisions for implementation of GBV plan for the sub-projects under DRIP-2 (Ref **Table 2**). Requisite provisions will also be included in the bid documents, so that the contractors will be aware all required roles and responsibilities of GBV action plan and accordingly price the bids.

Table.2: Budget for Implementation of GBV Action Plan (in Substantial /High risk sub-projects)

Sl No	Particulars	Unit	Unit Cost Provision (INR)	Amount (INR)
1	Cost of GBV Service Provider			
2	Hiring of local field support on intermittent requirement basis, training requirement, cost of signage, resource materials and community meets/interactions etc. *	Lumpsum	Lumpsum	
			Sub Total	
			Contingencies	
Total INR Rounded off to				
INR Only				

Appropriate budgetary allocations shall support and include the process to prevent and respond to GBV in the project. The budgetary provision includes for investment in:

- Staff development and training programs.
- Guidance notes and continuous learning.
- Client capacity-building on SEA.
- To partner with GBV Services Providers to facilitate access to timely, safe and confidential services for survivors (including money for transportation, documentation fees, and lodging if needed).

UNDERSTANDING GBV KEY TERMS AND DEFINITIONS

GBV is an umbrella term for any harmful act that is perpetrated against a personôs will and that is based on socially ascribed gender differences. GBV includes acts that inflict physical, mental, sexual harm or suffering; threats of such acts; and coercion and other deprivations of liberty, whether occurring in public or in private life. The term GBV, is most commonly used to underscore systemic inequality between males and females - which exists in every society in the world - and acts as a unifying and foundational characteristic of most forms of violence perpetrated against women and girls. The term GBV stems from the 1993 United Nations Declaration on the Elimination of Violence against Women, which defines violence against women as ñany act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to womenò. Discrimination on the basis of sex or gender identity is not only a cause of many forms of GBV, but also contributes to the widespread acceptance and invisibility of such violence - so that perpetrators are not held accountable and survivors are discouraged from speaking out and accessing support.

Violence against women and girls (VAWG)	The 1993 UN *Declaration on the Elimination of Violence against Women* defined violence against women and girls as any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life (Article 1). Violence against women and girls shall be understood to encompass, but not be limited to, the following: • Physical, sexual and psychological violence occurring in the family, including battering, sexual abuse of female children in the household, dowry-related violence, marital rape, female genital mutilation and other traditional practices harmful to women, non-spousal violence and violence related to exploitation. • Physical, sexual and psychological violence occurring within the general community, including rape, sexual abuse, sexual harassment and intimidation at work, in educational institutions and elsewhere, trafficking in women and forced sex work. • Physical, sexual and psychological violence perpetrated or condoned by the State, wherever it occurs (Article 2). Violence against women and girls is a manifestation of historically unequal power relations between men and women, which have led to domination over and discrimination against women by men and to the prevention of the full advancement of women.
Gender-based violence (GBV)	Gender-based violence (GBV) is an umbrella term for any harmful act that is perpetrated against a personôs will and that is based on socially ascribed (i.e. gender) differences between males and females. It includes acts that inflict physical, sexual or mental harm or suffering, threats of such acts, coercion, and other deprivations of liberty. These acts can occur in public or in private (IASC 2015). Women and girls are disproportionately affected by GBV across the globe.
Sexual harassment (SH)	Unwelcome sexual advances, requests for sexual favours, and other unwanted verbal or physical conduct of a sexual nature. SH differs from SEA in that it occurs between personnel/staff working on the project, and not between staff and project beneficiaries or communities. The distinction between SEA and SH is important so that agency policies and staff training can include specific instructions on the procedures to report each. Both women and men can experience SH.
Sexual Exploitation and Abuse (SEA)	Any actual or attempted abuse of a position of vulnerability, differential power, or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. Sexual abuse is further defined as ñthe actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.ò Women, girls, boys and men can experience SEA. In the context of World Bank supported projects, project beneficiaries or members of project-affected communities may experience SEA.
Child/ Forced early Marriage	Forced marriage is the marriage of an individual against her or his will. Child marriage is a formal marriage or informal union before age 18. Even though some countries

	permit marriage before age 18, international human rights standards classify these as child marriages, reasoning that those under age 18 are unable to give informed consent. Therefore, child marriage is a form of forced marriage as children are not legally competent to agree to such unions (IASC 2015).
Human Trafficking	The recruitment, transportation, transfer, harbouring or receipt of persons, by means of force, the threat of force, other forms of coercion, abduction, fraud, deception, of the abuse of power, or of a position of vulnerability, or giving or receiving of payments or benefits to achieve the consent of a person, having control over another person, for the purpose of exploitation. Exploitation includes, at a minimum, the exploitation of the sex work of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs (United Nations 2000. Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children).

SCOPE OF GBV RISK

IPFs that involve major civil works, focuses on two of the four GBV risk categories that can arise ï SEA and Workplace SH. (See Figure 1 below).

Figure 1: GBV Risk Areas

GENDER BASED VIOLENCE – CODE OF CONDUCT

1. Compliance with applicable National and Company **laws, policies, rules**, and **regulations** (including policy on sexual harassment).
2. Compliance with applicable **health and safety requirements** to protect the Local Community (including vulnerable and disadvantaged groups), the Employerôs Personnel, and the Contractorôs Personnel (including wearing prescribed personal protective equipment, preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment).

3. Will not use illegal substances.
4. Will **not discriminate** in dealing with the local community and all co-workers. Treat women, children (persons under the age of 18), and men with respect regardless of race, colour, language, religion, political or other opinions, national, ethnic or social origin, property, disability, birth or other status.
5. Will not indulge in **Sexual Harassment** (for example prohibition of the use of language or behaviour, particularly towards women and/or children, that is inappropriate, abusive, sexually provocative, demeaning or culturally inappropriate).
6. **No Violence, including sexual** and/or gender-based violence (for example acts that inflict physical, mental or sexual harm or suffering, threats of such acts, coercion, and deprivation of liberties).
7. **No Exploitation** including sexual exploitation and abuse (for example the prohibition of the exchange of money, employment, goods or services for sex, including sexual favours or other forms of humiliation, degrading behaviour, exploitative behaviour, and abuse of power).
8. Refrain from **Sex** with anyone under the age of 18 and that the breach of this code will incur sanctions that could impact employment.
9. Will not **mix/ interact with children** including sexual activity or abuse, or otherwise unacceptable behaviour towards children (anyone under the age of 18), and ensure their safety in the project areas.
10. **Sanitation** requirements (for example, to ensure workers use specified sanitary facilities provided by their employer).
11. Avoid **conflict of interest** (such that benefits, contracts, or employment, or any sort of preferential treatment or favours, are not provided to any person with whom there is a financial, family, or personal connection).
12. Respect reasonable **work instructions** (including environmental and social norms).
13. Protection and **proper use of property** (for example, to prohibit theft, carelessness or waste).
14. Will **attend training** for the duration of the contract for understanding this Code of Conduct.
15. Will **report violations** of this Code. All staff must report suspected or actual violations by a fellow worker, whether in the same contracting firm or not. Reports must be made through the GRM setup for this purpose.
16. **Sanctions** may be applied if an employee is confirmed to be a gender-based violence perpetrator. The sanctions will be proportional to the transgression and in accordance with applicable laws and policies.
17. **Non- retaliation** against workers who report violations of the Code, if that report is made in good faith.

I have read and was explained all the contents given above, and I understand the requirement. I shall strictly adhere to this Code of Conduct in all the areas of work. I understand the insistence on compliance with these norms which are mandatory for me.

IR ï INCHARGE NAME OF WORKMEN

CONSTRUCTION

DATE:

STRATEGY FOR IMPLEMENTATION OF CoC

Sl No	Particulars /Actions	Responsibility	Timelines
1	Draft GBV CoC and inclusion in ESMP	Social Specialist at SPMU	Before mobilization of contractor.
2	Sharing with WRD staff and all stakeholders through Half day Orientation Programme.	Social Specialist at SPMU	Within one month of project effectiveness
3	Inclusion of GBV CoC in ESMP and Bid Documents.	SPMU	Bid Documents Preparation/ Finalization Stage
4	Sharing Draft GBV CoC with Contractors and finalizing it	SPMU and Social Specialist	Upon mobilization of contractor and before deployment of workforce
5	Signing of the CoC along with the Employment contract by each new worker	Contractor	For all new workers on their first day of employment
6	Inclusion in Health Safety Induction, Tool Box Talk and task Briefing /Trainingôs for new labour	(SPMU) and Contractor	Monthly and when new workers join. For the complete duration of the project.
7	Training of Health and Safety Engineers /staff on GBV	Social Specialist at SPMU with support from Contractor	Quarterly after the mobilization of contractor and deployment of workforce for the complete duration of the project.
8	Review of QPRs on CoC	Social Specialist in SPMU & CPMU, Contractor	Every 3 months after the mobilization of the contractor, for the complete duration of the project.
9	Joint Review Meeting (JRM)	SPMU, CPMU and, WB	Bi-annually after the mobilization of the contractor, for the complete duration of the project.

RESPONSIBILITY AND TIMELINES FOR GBV ACTION FRAMEWORK

The table below gives a comprehensive list of actions, the accountabilities and the timeframe.

Action to Address GBV Risks	Detail	By Whom	By When
Designating GBV Specialist by SPMU	He/she will supervise issues related to GBV (e.g., signing of Codes of Conduct (CoCs), verify working GRM for GBV, monitor activities of GBV Service Provide, routing complaints to the appropriate contractor/dept within WRD and follow-up for redressal, periodic reporting etc)	SPMU	At project initiation. Before mobilization of contractor/s.
Hiring GBV Specialist by CPMU on need basis	A GBV specialist within the Social and Environment dept of CWC (CPMU), will handle escalations from SPMU, related to GBV and work with SPMU for redressal, periodic review and reporting (to CWC and MoJS).	CPMU	At project initiation. Before mobilization of contractor/s.
Hiring of GBV Service Provider on need basis	SPMU will hire a GBV Service Provider after a Capacity Assessment of its abilities to provide quality survivor centred services including security, legal, health care, safe space, case management and also providing referral services to link to other services not provided by it.	SPMU	At project initiation
Identification of project's GBV Risks	Mapping of below mentioned GBV Risks done on the basis of experience from DRIP 1 and Secondary data: **At-Risk Groups** **Hot Spots**	Social Specialist at SPMU & CPMU	Once before mobilization of Contractor/s; Ongoing throughout the life of the Project.
Updation of Project Safeguard Documents	Have GBV risks adequately reflected in all safeguard instruments (i.e., **Project ESMP**)ð particularly as part of the assessment in the ESA. Include the GBV mapping in these instruments.	Social Specialist at SPMU & CPMU	Once before mobilization of Contractor/s; Ongoing throughout the life of the Project.
	Have the GBV Risk reflect in the Contractor's **C-ESMP** which is derived from the ESMP.	Social Specialist at SPMU	Once before hiring workforce; Ongoing throughout the life of the project.
Accountability and Response Framework	Develop a GBV Action plan including the **Accountability and Response Framework** as part of the **ESMP**.	Social Specialist at SPMU & CPMU	Once before mobilization of Contractor/s; Ongoing throughout the life of the Project.

Action to Address GBV Risks	Detail	By Whom	By When
	Contractor's response to the Accountability and Response Framework in the ESMP, will be made in **C-ESMP.** C-ESMP will be evaluated at the time of bidding, to evaluate contractorôs capacity to address the GBV risks of the project.	Contractor	Once before hiring workforce; Ongoing throughout the life of the project.
Capacity Assessment	Assessment of the local capacity of the GBV Service Provider to prevent and respond to GBV, including the availability of safe and ethical service provision for survivors.	Social Specialist at SPMU & CPMU	Once before hiring the GBV Service Provider/s; Ongoing throughout the life of the project.
Monitoring and implementation of Stakeholder Engagement Plan	As part of the projectôs stakeholder consultations, those affected by the project should be properly informed of GBV risks and project activities to get their **feedback on project design and safeguard issues**. Consultations need to engage with a variety of stakeholders (political, cultural or religious leaders, health teams, local councils, social workers, womenôs organizations and groups working with children).	Social Specialist and/ GBV Specialist at SPMU & CPMU	Once before Contract mobilisation; Consultations need to occur continuously throughout the life of the project.
	The Stakeholder Engagement Plan of the project, which will be implemented over the life of the project will create **awareness** in the local communities and other stakeholders about the projectôs activities, to specifically address GBV related issues.	Social Specialist and/ GBV Specialist at SPMU & CPMU	Once before Contract mobilization; Consultations need to occur continuously throughout the life of the project.
Institutionalizing and monitoring a GRM	Make certain the availability of an effective grievance redress mechanism (GRM) with multiple channels to initiate a complaint. It will have specific procedures for safe and ethical documenting of GBV cases. GBV GRM outside of the project GRM to ensure the requirement for confidentiality and delicate handling.	Social Specialist and/ GBV Specialist at SPMU & CPMU	Once before hiring the GBV Service Provider/s; Ongoing throughout the life of the project.
Review GRM	Review that the GRM receives and processes complaints to ensure that the protocols are being followed in a timely manner, referring complaints to an established mechanism to review and address GBV complaints.	Social Specialist and/ GBV Specialist at SPMU & CPMU	Ongoing throughout the life of the project.
Code of Conduct Implementation Strategy	**The implementation Strategy for CoC covers the following:** ÅCodes of Conduct to be created to cover the specific GBV Risks of the project. Å Ensure requirements in CoCs are	Social Specialist and/ GBV Specialist at SPMU &CPMU and	CoC to be created by SPMU prior to mobilization of contractor/s. All

Action to Address GBV Risks	Detail	By Whom	By When
	clearly understood by those signing. ÅHave CoCs signed by all those with a physical presence at the project site. ÅTrain project-related staff on the behaviour obligations under the CoCs. ÅDisseminate CoCs and discuss with employees and surrounding communities.	Contractors	CoCimplementation activities are ongoing throughout the life of the project.
Training plan for SEA and SH	Have project workers and local community undergo mandatory training on SEA and SH. The training curriculum and schedule to be finalized before civil work begins. Orientation on SH/SEA to be included in Safety Induction, Tool Box Talk and task Briefing/Trainingôs for new labour etc.	Social Specialist and/ GBV Specialist at SPMU & CPMU	Curriculum and training schedule to be fixed before mobilization of Contractor. Training ongoing throughout the life of the project.
Evaluation and Monitoring of Proper Residential and Working Conditions	Proper residential and work conditions can help reduce GBV Risks. Evaluation and monitoring of the working conditions to be in line with what is proposed as the GVP Action Framework, Labour laws of India and ESS of WB. Reporting and follow-up for deviations found in the facility.	Social Specialist and/ GBV Specialist at SPMU & CPMU	Once before mobilization of Contractor/s; Ongoing throughout the life of the Project.
Signage	Adequate signages and posters are required to be placed in strategic places in the labour camp, dept and construction site. They will carry the message (in regional language) of "Zero Tolerance" to SH and SH. The IEC material will also have information of access points for reporting GBV.	Social Specialist and/ GBV Specialist at SPMU & CPMU	Once before mobilization of Contractor/s; Ongoing throughout the life of the Project.
Reporting	QPRs will report various parameters of the implemented GBV Action Framework. They will be circulated in the SPMU and CPMU.	Social Specialist and/ GBV Specialist at SPMU & CPMU	Quarterly; Ongoing throughout the life of the project.
Supervision & Oversight	The performance of the GBV Action Framework will be will discussed in JRM for supervision.	Social Specialist and/ GBV Specialist at SPMU & CPMU	Bi-annually; Ongoing throughout the life of the project.

MODALITY, FREQUENCY AND CONTENT OF TRAINING

Group	Modality	Frequency	Topic
ICC Members for CWC and WRD	2 day workshop including power point presentations, Oral discussions, case studies and Group work.	1-2 days orientation workshops every 6 months	• Introduction on GBV, SEA and SH. Identified GBV risks in the project. • National and state policies on SH and roles and responsibilities of ICC committee members. • Potential GBV risks and hotspots in the project. • Understanding of the roles and responsibilities in accordance with the accountability and results framework. • Mitigation strategies and effective implementation of the action plan. • Monitoring and reporting on GBV and GBV GRM.
WRD staff	1 day orientation programme on GBV. Power point presentation, Oral discussions, sharing of best practices and group activities	Every 6 months (1 month after the project initiation)	• Introduction on GBV, SEA and SH. Identified GBV risks in the project. • Working with contractors to prevent SH in the workplace (as well as within the agency and the contracting firms) and other forms of GBV in the project-affected communities (for example, through CoCs). • Strengthening GRMs and other monitoring mechanisms to provide safe and ethical reporting systems for people wishing to report cases of GBV, and their linkage with adequate response actors. • Understanding of the roles and responsibilities of the GBV CoC and the accountability and response framework. • Effective implementation of the action plan. • Available service providers working on GBV in the area and other referral pathways.
Contractor and including sub-contractors	1-day orientation program on GBV. Power point presentation Oral discussions, case	Every 6 months (one month after contractors are engaged)	• What constitutes GBV, SEA and SH. • National, state and corporate policies on SH • Available service providers working on GBV in the area and

Group	Modality	Frequency	Topic
	studies of best practices and group discussions/work.		other referral pathways. • Strengthening GRMs and other monitoring mechanisms to provide safe and ethical reporting systems for people wishing to report cases of GBV, and their linkage with adequate response actors. • Promoting interventions to reduce the level of tolerance to GBV by contributing to community mobilization around project sites, including the use of partnerships with NGOs, national and local authorities and other leaders. • Key elements of the CoC, • Strengthening and monitoring of the GBV GRM systems and reporting and response protocols.
Workers	One day orientation. Power point presentations, Oral discussions and group activities.	Every 6 months and daily	• Explaining GBV, SEA and SH and key GBV risks identified. • Key elements of the CoC. • Zero tolerance policy on GBV
Workers	10 mins discussion in the tool-box talks and during safety inductions	Daily	• Explaining GBV, SEA and SH and key GBV risks identified. • Key elements of the CoC. • Zero tolerance policy on GBV
Community volunteers/ focal point	One day orientation. Power point presentations Oral discussions and group activities	Every 3 months	• Explaining GBV, SEA and SH in the context of the project, including identified GBV risks and hotspots. • Awareness about the key mitigation strategies and GRM mechanisms for GBV incidents and response. • Their roles as focal points for continuous dialogue and feedback from the community for GBV prevention and mitigation.

Annexure 8: Guidance Framework for Occupational Health & Safety Management for Workers and Community (ESS 2 & ESS 4)

A. Background

Dam rehabilitation work may have associated hazard such as working at height, working in confine areas, fire etc which can cause occupational and safety risk for workers and community mandating planning or its prevention and management. Workers are also subject to occupational health risks depending on workplace environment and hygiene conditions. It is essential that an effective and site specific Occupational health and safety Management Plan along with emergency preparedness is prepared at planning stage itself and implemented at site for ensuring incident free dam rehabilitation work and safety of community.

ESS 2 aims to promote Safety and Health at work. Similarly, ESS4 recognise that project activities equipment and infrastructure can increase community exposure risks and impacts as well workers involved. Its sets the following objectives:

1. To ensure that the safeguard of personnel and property is carried out in a manner that avoids or minimise risk to the project affected communities
2. To anticipate and avoid adverse on the health and safety of project affected communities during the project lifecycle from both routine and non-routine circumstances
3. To promote quality and safety and considerations relating to climate change. In the design and construction and infrastructure including dams.
4. To avoid or minimise community exposure to project related traffic and road safety risks, diseases and hazardous material.
5. To have in place effective measures to address emergency events.

Dam rehabilitation improvement work may not affect community in general. However to ensure safety of worker and community this framework has been prepared.

B. Scope of an Occupational Health Safety management plan (OHSMP):

OHSMP shall meet the following aspects:

1. Hazard identification associated with each activity during construction and operation stage
2. Define procedure for work zone classification, incident and emergency management
3. Define management of injuries, illness and specific hazard associated with workplace/activities
4. Define facilities like medical, and resources like PPE, Ambulances requirements
5. Defines training, OHS monitoring and reporting requirements.
6. To comply with IFC E & S guidelines

C. OHSMP Preparation and Approval

OHSMP shall be prepared prior to start of construction, conforming to all requirements listed at section óDô below. It shall be prepared by contractor and finalised and approved by SPMU. The finalised version of OHSMP shall also be shared with CWC and Bank.

D. Content of Site Specific OHSMP

i. Hazard Identification and Risk Management:

Hazard Identification: For effective prevention of incidents and safety of workers and community, it is essential first to identify all potential hazards and risks associated with construction activities, material handling, movement/use of heavy machinery, handling of hazardous substance (like fuel, oil and paints, gas cylinders use which are flammable in nature) and electrical work.

Some of the potential hazard associated with Dam Rehabilitation work is indicated at Table below for guidance purposes and the Engineer in charge in consultation with E&S Expert has to see whether such hazard are applicable for the given rehabilitation activities. The contractors shall follow these for developing site specific OHSMP in cases where the potential hazard is high.

Hazards like fire and exposure to dust etc which may affect community shall also be identified and measures shall be defined for community awareness and protection

Potential Hazard & Risk	Sources/causes
Collapse	▪ Scaffoldings ▪ Civil structures ▪ Earthwork/excavation
Fall, Suffocation , Slips (man and Material)	▪ Working in confine area ▪ Work at Height (Roof Work, Steel Erection, Scaffold, Repair & Maintenance, Erection of equipment, Excavation etc.) ▪ Slips (Watery surfaces due to rain) ▪ Lifting tools & Tackles (Electric Hoist & Forklifts)
Bulk spillage	▪ Hazardous substance / inflammable liquid storage Vehicular movement on highway
Fire and explosion	▪ Inflammable Storage Areas ▪ Gas Cylinder Storage Areas ▪ Electrical Circuits ▪ Welding / Gas Cutting Activity ▪ Inappropriate handling of Oxy Acetylene gas cylinders (LPG/DA)
Electrical Shock	▪ HT line ▪ LT distribution ▪ Electrically Operated Machines / Equipment / Hand Tools / Electrical Cables
Gaseous Leakage	▪ Gas Cylinder Storage Areas ▪ Gas Cylinder used in Gas Cutting / Welding Purposes
Accidents due to use of heavy machinery and vehicle movement Vehicles	▪ Heavy Earth Moving Machinery ▪ Cranes ▪ Fork Lifts ▪ Trucks ▪ Workman Transport Vehicles (cars / scooters / motor cycles / cycles) ▪ Collapse, toppling or collision of transport equipment
Collision with stationary/ moving objects	▪ Vehicular movement
Other Hazards	▪ Cuts &Wounds ▪ Confined Space (under & inside machinery etc.) ▪ Hot Burns

Hazard Risk Management: Hazards identification shall be followed with defining measures for its effective management for the protection of workers and community. It should cover minimum the following aspects:

- ***Work Zone Classification***: Classify the work zone depending on risk intensity into low and high risk areas. Define restriction for accessibility to high risk area. Only authorised persons shall be permitted to move in the high risk area. Provision shall be made for adequate signage for notifying high risk areas with awareness signage about risk associated and preventive measures required. Responsibility shall also be defined for ensuring adherence to restriction and cautions required for working in high risk areas. (it should generally be allocated to safety officer to be appointed for the project)

- **Task Specific Hazard Prevention**: Procedure and guidelines shall be defined as per best industry practices and legislative requirement if any applicable, for task specific hazard prevention and safety such as precautions for working on height requiring which will require provision of safety belt/helmets .

- **Injury Management**: define responsibility and action sequence including availability of first aid boxes and first aiders. Location and contents of first aid box shall also be well defined under OSHMP

- **Lightning**: Provision shall be made that illumination level at work place as per applicable norms.

- **PPE & Hand Tools**: detailed listing shall be made under OSHMP about nature of PPE and hand tools required and ensuring its availability. Method shall also be defined for ensuring use of PPE by the workers. Provision of helmet, boots, hand gloves shall be made for everyone.

ii. Staff Health & Fitness on duty:

Staff health plays major role for incident prevention. OHSMP shall have provisions for medical check-ups at the time of appointment with defined periodicity for follow up check-ups. OHSMP shall also list the measures for fatigue management, ergonomics, and alcohol and drugs use prevention.

iii. Hygiene and Sanitation:

Adequate attention has to be given for workplace and Labour camp Hygiene. Provision shall be made under OHSMP for availability of clean and hygiene eating place with availability of safe drinking water at workplace and labour camp. Similarly, adequate provision shall be made for clean toilets with sewage treatment (provision of septic tanks), and segregated collection and safe disposal of domestic wastes.

iv. Incident Management and preparedness:

OHSMP shall define procedure for incident management including investigation of any accident. Preferably provision shall be made for Safety and Environment Committee which can undertake investigation and incident analysis and suggest appropriate corrective action.

Adequate provision shall be made for the availability of First Aid, Ambulance, Doctors, Safety and Health representative.

v. Occupational Health and Safety Monitoring:

OHSMP shall also defines frequency of periodic monitoring for assessing its implementation effectiveness. Monitoring analysis shall also include calculating accident and fatality rate as well.. Parameters of monitoring including health surveillance shall form part of monitoring program.

vi. Communication and Consultation (Workers & community):

Awareness, consultation and communication is very effective tool for incident prevention and panic avoidance in emergency situation. OHSMP shall define programme for community consultation and communication and workerôs training/awareness programme. It shall also list safety and health communication with key stakeholders. OHSMP shall also define extent of safety signage that shall be displayed at work place and project areas.

vii. Training and Records:

Training is integrated and essential component of effective OHSMP implementation . OHSMP shall define the programme of overall OHS and safety induction including site specific induction, driving safety and refreshing training.

All training records shall also be maintained. Records shall also be maintained for incident analysis, OHS monitoring, emergency preparedness plan with emergency contact numbers, Mock drill/emergency preparedness exercise and Corrective preventive actions undertaken

viii. Emergency Management

OHSMP shall have provision for preparation of emergency preparedness plan as well. It should have two major component ñon site Emergency planò and ñemergency Control Centerô created at work site only. The generic coverage under these two components are as follows:

Coverage 'On-Site Emergency Plan': The On-site emergency plan shall include the following:

- Name, Designation & Contact Numbers of the organization, nearby hospitals, fire agencies etc. and key personnel including their assigned responsibilities in case of an emergency.
- The roles and responsibilities of executing personnel
- Site Layout Diagram showing location of fire extinguishers, emergency collection area and fire alarm, assembly points.
- Listing of Potential Emergencies Situations/ preventive measures / control & response measures
- Location of Emergency Control Centre (or designated area for emergency control / coordination) with requisite facilities.
- Medical services / first aid
- List of emergency equipment including fire extinguishers, fire suits etc.
- Mock drill provisions

Emergency Control Centre: The emergency control centre shall be equipped with following facilities for high risk interventions:

- Copy of current on-site emergency plan
- Display of the name of site emergency controller
- Two numbers of artificial respiratory sets
- Two numbers of Stretchers
- Vehicle for 24 hours (for large construction sites)
- Inter personnel/section telephone (2 numbers)
- Site layout diagram with entry and exit routes / Assembly points
- Directory of internal / external emergency phone Numbers
- A set of fire extinguishers (DCP type / Foam Type / CO2)
- List of fire extinguishers installed in the construction site including maintenance record
- A set of personal protective equipment (PPE)
- Two numbers of first-aid boxes with prescribed first-aid medicines
- List of competent first-aiders
- List of fire trained personnel
- Two numbers of blankets
- Drinking water
- Two numbers of rescue ropes
- Two numbers of high beam torches
- Two numbers of gas leak detectors
- Life boat& jackets (if working in or near water course)

ix. Reporting

Contractor will share the OHSMP monitoring reports with Engineer in charge who in turn will review the report and share with SPMU. The SPMU shall share the reports with CWC on quarterly basis. The Bank may request CWC for the reports on need basis . Any fatal accident shall be reported to SPMU, CWC and Bank with its investigation report within 48 hours of its occurrence. Reporting of Fatal accident shall also be made to concerned Govt. Authorities. Corrective and preventive action compliance shall be reported in next quarterly monitoring report.

x. Responsibility

Prime responsibility of developing and implementation of OHSMP shall be of the Contractor. Contractor shall also ensure deployment of trained OHS officer to work site wherever needed. All applicable legislation shall also be identified and compiled by contractor. SPMU in consultation with contractor will develop OHSMP on aspects detailed above and ensure its implementation from the contractor. Contractor will share the PPEQMP monitoring reports with SPMU on regular basis. SPMU in turn will share quarterly reports of progress of work including such plans to CWC, which in turn , will share consolidated compliance report in line with ESMP and ESCP to the World Bank. Corrective and preventive action where required for maintaining environment quality shall be reported in next quarterly monitoring report.

xi. Do’s and Don’t for Low OHS risk

Low OHS risk projects also requires to ensure certain minimum OHS requirements which are indicated below in the form of Dos and donâts

DO's

Pre employment Health Check up: Ensure that health of each worker is checked and health record is maintained before deputing them to work.

Deployment of EHS officer: Designate a person responsible for OHS who is fully acquainted with handling of OHS issues

Induction training: Ensure that every workers is given OHS orientation training which will include use of PPE, first aid, use of fire extinguishers, action to be taken in case of accidents, caution to be exercised during working at height or confined areas, respecting system and procedures evolved at site for safe working. Training shall create enough awareness amongst workers so that they take reasonable care to avoid acts or omissions that are likely to result in injury to self, or the other workers/and other people

First Aid: Ensure that first aid box is provided at each workplace with easily identifiable location. Few workers shall be trained as first aider including in CPR techniques

PPE: Ensure availability of PPE. helmet, boot, earplug (for noisy areas) , mask for dusty areas, gloves, safety belt and safety jacket

SOPs :Define SOPs (standard operating procedures) for Woking at heightor confined areas which will include minimum two persons working, oneat work and another standby as rescuer.

Ventilation : Maintain adequate ventilation at confined areas and at workplace

Illumination : Maintain adequate illumination at all workplaces

Electric Hazards : Prevent exposure to electrical hazards

Fire Protection: Ensure adequate fire extinguisher (as per type of fire hazard viz. A, B , C) are placed at workplace.

Dust Control : Ensure that workers are not exposed to high dust and noise level which can affect their health. Use dust supressing system like water sprinkling and muffler or acoustic enclosures for noise generating system.

Gas Cylinder handling : Acetylene and oxygen/gas cylinders shall be handled using trolley where these cylinder are securely separated with each other for its safe use.

Drinking Water and Sanitation : Ensure that safe drinking water is available at each work site. Also mobile toilets fitted with anaerobic sewage treatment system are provided at each work site.

Barricading and securing the work areas: Each hazardous work area, if any, have safety barricading depending on nature of hazard viz trip, fall danger, restricted entry area, electrical hazard.

Safety Signage and Mock Drill: Place adequate safety caution and signage in local languages for awareness to workers. Also conduct periodic mock drill.

Back-up Medical facility: identify and tie up with equipped hospital capable of providing ambulance and medical facilities or handling major injuries

Accident Reporting ***Analysis and Prevention***: Identify the reportable accidents[1], analyse the cause of each reportable accident, maintain the record with analysis and take corrective action based on cause analysis for prevention of such accidents in future

Caution from Covid-19 scenario: Provide multiple entries for workers to avoid crowding depending upon site condition. Ensure that physical distancing is maintained as far as possible at workplace. Each worker shall be provided with face mask

Compliance to law: Ensure that legal requirement is followed like restriction on use of Child labour etc.

DON'Ts

Do anything which may leads to risk to established health, safety and well-being rules or relevant health, safety and well-being regulatory requirements.

Jeopardise mental and physical well-being or that of people you work with by, for example, imposing unreasonable deadlines or regularly demanding longer working hours.

[1]An accident which causes death or which causes any bodily injury by reason of which the person injured is prevented from working for a period of forty-eight hours or more immediately following the accident (as per Building and Other Construction Workers Act, 1996)

Annexure 9: Guidance Framework for Pollution Prevention and Environmental Quality Management Plan (ESS 3)

A. Background:

Any project activities can lead to generation of pollution to air, water, land and use large quantities of resources which can affect people, and eco system service. ESS3 set outs the requirement for resources efficiency and pollution prevention and sets out the following objectives:

1. To promote the sustainable use of resources including energy, water and raw materials
2. To avoid or minimise adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities
3. To avoid or minimise project- related emissions of short and long lived climate pollutants
4. To avoid or minimise generation of hazardous and non-hazardous waste
5. To minimise and manage the risks and impacts associated with pesticide use.

Keeping above objectives and applicable aspects of ESS3 standard, this framework is developed.

Pollution Prevention (P2) is a scientifically proven technique for conservation of natural/input resources. It follows the principal that any waste is a resource misplaced and If a resource get released to environment than it results in affecting the environmental quality depending on nature of waste released to environment viz. air, solid or liquid. The fundamental techniques applied for P2 is four ó4Rs; (reduce, recycle, reuse, or recover). Dam rehabilitation/improvement project is also likely to use various resources (input material) , but in a limited quantities such as construction material, paints, water, fuel, lubricating oils, electrical items, instrumentation systems/parts etc which can be conserved or optimally utilised. It is desirable to ensure optimal use of these resources and prevent pollution following 4R techniques. This Pollution Prevention and Environment Quality Management Plan (PPEQMP) is aimed to evolve guidelines which can result in conservation of resources and thus prevention of pollution.

B. Scope of PPEQMP:

The PPEQMP should meet the following requirements:

1. Inventory of all resources likely to be used during construction stage with its sources of supply, mode of transportation, and storage quantities.
2. Identification of sources of waste generation with reason and generation quantities during transportation, storage or operation stages.
3. Define Measures for waste (hazardous and non-hazardous) reduction at source, or possibilities for recycle, reuse, or recovery
4. Maintaining environment quality through periodic monitoring and initiate corrective preventive action where required

C. PPEQMP Preparation Responsibility and Approval

PPEQMP shall be prepared prior to start of construction which should be updated during implementation stage. It should meet the content listed at section óDô below. It shall be prepared by contractor and finalised and approved by SPMU

The SPMU shall share only prior review C-ESMP which shall contain PPEQMP with CWC and World Bank accordingly

D. Content of PPEQMP

The broad Table of content of PPEQMP to be developed by contractor for achieving above stated objectives can be on the following lines

a. Resource Identification, waste inventory and Pollution prevention

- Identify all resources to be used for proposed improvement areas with its source, mode of transportation and storage requirements.
- Identify all reasons for waste generation with generation quantities during transportation, storage or operation stage (One of such example of waste generation is dust generation during transportation of earth or sand etc..). The waste generation assessment shall be for all type of waste viz. air, liquid or solid state.
- Evolve strategies for prevention of pollution and detailed measures with responsibilities for implementation of these measures
- List potential method for implementation of Pollution Prevention linked 4R (Reduce, Reuse, Recycle and Recover) techniques, which includes simple measures such as use of treated sewage water for dust suppression. Use of waste oil for lubrication of low level application in heavy machineries.
- Develop consumption norms where feasible for benchmarking material consumption and better tracking the resource use.
- Maintain environment quality (air, water, Noise) meeting the applicable regulatory environment quality norms

b. Training and Records

Since Pollution prevention is generally not practiced at most of the project sites, this concept is new to officers and workers. Thus, induction training is must for effective implementation of this plan.

Training shall be provided as part of induction training to all the employees and workers on their joining the project. Training records shall also be maintained. Records shall also be maintained for Environment Quality Monitoring which are used a reference material for planning an effective P2 programme.

c. Environment Quality Monitoring(Only for High Risk sub Projects)

The effectiveness of any Pollution prevention programme can only be assessed by periodically monitoring and analysing environmental quality data. Dam Rehabilitation/Improvement projects may have impact of Air Quality, Water Quality, Ambient Noise level, soil quality and biodiversity. Since a separate biodiversity conservation plan is prepared, it will not be covered under this plan. The PPEQM should have parameters and frequency of monitoring and reporting. Considering that project may have impact on the environment following monitoring plan is suggested which shall be updated based on project activity.

Environment Component	Monitoring Parameters	Suggestive Monitoring Frequency
Air Quality	SOx, NOx, PM10 and PM2.5	24 hourly samples, Once at start of wok, once during

		active construction period and once before end of construction work at two monitoring locations. This frequency will vary depending on nature of work involved
Ambient Noise level	Day and night levels	At two location near sensitive receptors once at start of work, once during active construction period and once before end of construction work
Water Quality	Drinking water	Only if any water source is likely to be silted or contaminated, once in a quarter
Soil Quality	General Parameters	If any land area is likely to be polluted around material storage locations., Once in a quarter

The above requirements are indicative and can be altered and modified as per project components and activities proposed.

d. Reporting

The Engineer in charge in consultation with contractor will develop PPEQMP(to be part of ESMP) on aspects detailed above and ensure its implementation from the contractor. Contractor will share the PPEQMP monitoring reports with Engineer-In-Charge and latter will share the report with SPMU on regular basis. SPMU in turn will share quarterly reports of progress of work including such plans to CWC, which in turn, will share consolidated compliance report in line with ESMP and ESCP to the World Bank.

e. Few tips for Pollution Prevention and Resource Conservation

Projects having low to moderate risk will have minimal construction and other activities and thus will have minimum resource conservation potential and waste minimisation potential. Certain minimum actions are given below for pollution prevention and resource conservation:

Water Conservation and prevention of water pollution: It shall be ensured that water shall be optimally utilised. Water tap shall not be left open leading to wastage of water. Wastewater from equipment/machinery cleaning should pass through grease and silt trap and use it for dust suppression. Domestic sewage shall also not be discharge on land or surface water bodies without treatment. It should be treated anaerobic digestion or through soak pits.

Conservation of Input resource: Input resources (like, cement, sand, paints, gas cylinders, etc) shall be stored in segregated manned and stored under cover conditions. It shall be issued as per standard norms and efforts shall be made for prevention of spillages, leakages during handling stage.

Prevention of Air Pollution: Air pollution is generated during handling and transportation of construction materials. All material shall be transported under covered conditions. Water (treated wastewater) shall be used for dust separation such as haulage road

Prevention of soil pollution: Wastes shall not be disposed of on land. All construction waste (solid waste) shall be stored at pre-designated locations. All waste shall be utilised for filling the low lying areas to the extent feasible. Waste oil shall be stored on concrete floor with spill oil collection pits. Used oil may preferably be used for low application lubrications.

Annexure 10: Resettlement Policy Framework (ESS 5)

Need and Purpose of RPF

1. The Environment and Social Due Diligence Assessments have been completed for the first set of 10 dams and these would be finalized, approved and disclosed by project appraisal stage. However, there are many more sub-project Dams ï their locations and activities therein are yet to be identified. As the preparation of ESDD/ESIA and required ESMP for such dams cannot commence at present, a Resettlement Policy Framework (RPF) has been prepared to guide the preparation of such required instruments once the final dams, locations and details of all activities are firmed up.

Principles and Scope of RPF

2. The Resettlement Policy Framework has been prepared based on: experiences from DRIP I, the ESDD assessment findings conducted thus far; anticipated impacts in components relating to tourism, water recreation sub-project activities and from the review of applicable legal and policy framework discussed above. The framework bridges the gaps identified between national and state legal framework and provisions and requirements laid down in ESS 5 It lays down the principles and procedures for management of social impacts caused by the project activities and guides the process of the social impact assessment and preparation of Resettlement Action Plans. It brings together and built upon the current good practices in terms of procedures to address more systematic and institutional issues; and establish institutional arrangements at project and state for the implementation of RAP.

3. Based on the analysis of Government statutes and the World Bank ESF presented in the chapter 2 on legal and regulatory framework, the following resettlement principles will be adopted to this project:

   - **Screen** the project early on to identify past, present, and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a census and socio-economic survey of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks. Take due precautions to minimize disturbance to human habitations, tribal areas and places of cultural significance. Adopt mitigation hierarchy i.e. approaches or measures to s to avoid and minimize involuntary resettlement impacts include the following: (i) explore alternative designs, to minimize impacts and (ii) ensure the appropriate technology is used to reduce land requirements.

     Where displacement is unavoidable, improve, or at least restore, the livelihoods of all displaced persons through; (i) land-based resettlement strategies, where possible, when affected livelihoods are land based, and when loss of land is significant, or cash compensation at replacement cost for land when the loss of land does not undermine livelihoods, (ii) prompt replacement of assets with access to assets of equal or higher value, and (iii) prompt compensation at full replacement cost for assets that cannot be restored.

   - **Ensure** that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets at replacement value.

   - **Improve** the standards of living of the displaced poor and other vulnerable groups, including women, to national minimum standards or standard before displacement whichever is higher.

- **Carry out** meaningful consultations with displaced persons, host communities, and concerned agencies/departments. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay attention to the needs of disadvantaged and vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and indigenous/tribal peoples, and those without legal title to land, and ensure their participation in consultations.

- **Prepare** a Social Impact Assessment (SIA) and Resettlement Action Plan (RAP) elaborating on the entitlements of displaced persons, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.

- **Identify vulnerable families** will be identified and provided additional support in their efforts to improve their living standards.

- **Disclose** a draft resettlement action plan, including documentation of the consultation process in a timely manner, in an accessible place and a form and language(s) understandable to displaced persons and other stakeholders. Disclose the final resettlement action plan and its updates to displaced persons and other stakeholders.

- **Pay** compensation
  Payments in the names of both spouses
  or single heads of households as relevant, and other resettlement
  assistance, such as skills training, access to credit, and
  job opportunities, should be equally available to women and
  adapted to their needs.

- **Provide** all resettlement entitlements before physical or economic displacement and before commencement of civil works in that stretch of the sub-project. Implement the resettlement plan under close supervision throughout project implementation.

- **Establish** an accessible grievance redressal mechanism to receive and facilitate resolution of the concerns of displaced persons within stipulated time-frames.

- **Monitor** and assess resettlement outcomes, their impacts on the standard of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by considering the baseline conditions and the results of resettlement monitoring.

Comparative Analysis of key national, state acts and policies versus Bank ESF

4. ESS 5 applies to permanent or temporary physical and economic displacement resulting from the following types of land acquisition or restrictions on land use undertaken or imposed in connection with project implementation.

   a) Land rights or land use rights acquired or restricted through expropriation or other compulsory procedures in accordance with national law;
   b) Land rights or land use rights acquired or restricted through negotiated settlements with property owners or those with legal rights to the land, if failure to reach settlement would have resulted in expropriation or other compulsory procedures.
   c) Restrictions on land use and access to natural resources that cause a community or groups within a community to lose access to resource usage where they have traditional or customary tenure, or recognizable usage rights. This may include situations where legally designated

protected areas, forests, biodiversity areas or buffer zones are established in connection with the project;

d) Relocation of people without formal, traditional, or recognizable usage rights, who are occupying or utilizing land prior to a project specific cut-off date;
e) Displacement of people as a result of project impacts that render their land unusable or inaccessible;
f) Restriction on access to land or use of other resources including communal property and natural resources such as marine and aquatic resources, timber and non-timber forest products, fresh water, medicinal plants, hunting and gathering grounds and grazing and cropping areas;
g) Land rights or claims to land or resources relinquished by individuals or communities without full payment of compensation; and
h) Land acquisition or land use restrictions occurring prior to the project, but which were undertaken or initiated in anticipation of, or in preparation for, the project.

5. The above stated scope for application of ESS 5 covers varied approaches that are likely to be adopted by the different IAs for land taking , when necessary. However, land taking using the Land Acquisition Act is most likely approach that shall be followed under the project. Comparison between RFCTLARR Act and World Bankôs ESF is summarized here. Annexure 8.1 presents the details along with gap-filling measures reflected in the entitlement matrix of the RPF that is applicable to this project.

- The Act, like provisions of ESS, requires SIAs for projects involving land acquisition with elaborate process of consultation at every notification stage.

- In determination of land value under the Act, computation provisions from Section 26-30 of Act are used. Besides, it provides for multiplication factor that ranges from 1.0 to 2.0[1] that varies by location/area and 100% solatium of computed amount.

- Act in its computation of compensation for structures takes depreciation into account and is not explicit about providing replacement cost of structures, though presumably the provision of 100% solatium will help arrive at replacement cost of structures or higher. ESS 5 requires replacement compensation for structures without depreciation

- The act requires that the value of trees, plants, or standing crops damaged to be compensated as determined under Section 29 of the Act. It also provides for 100 percent solatium on the amount computed for these assets.

- The Act similar to World Bank requires compensation to be paid, prior to project taking possession of any land and provide R&R support including transitional support and moving allowances. All payments are required to be paid in one single instalment to the affected land owner prior to taking over land and its transfer to the project.

- Cut-off date for determining the compensation and entitlements and assistance to all those who are affected by the project irrespective of the ownership of titles. According to the RFCTLARR Act, the cut-off date for assistance to those depending on affected private lands is three years preceding the acquisition and for the titleholders it is the date of notification under the said Act. To bring this RPF in line with World Bank requirements, RPF mandates that while in the case of land acquisition, the date of issue of public notice of intended acquisition under Section 4(1) under the Act will be treated as the cut-off date for title holders. In case of non-titleholders such as squatters and encroachers, cut-off date will be the start date of the census survey.

[1] based on the distance of project from urban area, as may be notified by the appropriate Government.

- In case of all affected non-title holders, suitable compensation (ex-gratia payments) for loss of assets and R&R assistance is proposed in the entitlement matrix.

- There shall be no income tax deductions in line with Sec 96 of the RFCTLARR Act. In the event any deductions are made toward taxes, such amounts will have to be reimbursed.

- Also similar to provisions laid down in RFCTLARR Act 2013, World Bank ESF (under ESS 5 & 7) requires consultation with PAPs during planning and implementation of resettlement action plan, Tribal Development Plan and public disclosure of drafts.

6. In the event of any conflict or inconsistency between the provisions of this GOI,RFCTLARR Act 2013, and the RPF and the provisions of World Bankôs ESF, the provisions of the ESF, 2016 shall prevail.

Definitions

7. In this Resettlement Policy Framework, following terms shall mean as described below, unless the context requires otherwise,

- Affected family: As defined in RFCTLARR Act 2013 and also as identified from the Census-Socioeconomic survey carried for the specific corridor.
- Agricultural Land: land used for: (i) agriculture or horticulture; (ii) dairy farming, poultry farming, pisciculture, sericulture, seed farming, breeding of livestock or nursery growing medicinal herbs; (iii) raising of crops, trees, grass or garden produce; and (iv) land used for the grazing of cattle.
- Agricultural labourer: means a person primarily resident in the affected area for a period of not less than five years immediately before the declaration of the affected area, who does not hold any land in the affected area but who earns his livelihood mainly by manual labour on agricultural land therein immediately before such declaration and who has been deprived of his livelihood;
- Assistance: All support mechanisms such as monetary help (R&R assistances), services, trainings or assets given to Project Affected Persons/Project Affected Families constitute assistance in this project.
- Below poverty line (BPL) family: means below poverty line families as defined by the Planning Commission of India, from time to time and those included in the BPL list for the time-being in force;
- Commissioner means the Commissioner for Rehabilitation and Resettlement appointed under sub-section (*l*) of section 44 of RFCTLARR Act 2013;
- Compensation: Compensation refers to: i) amount negotiated with the land owner based on the private negotiations method (under Standing order No 28); ii) restitution made to property under Sec 26-30 as per provisions laid down in RFCTLARR Act 2013;
- Cut-off Date: For title holders, the date of first notification ï Section 4 (1) under LA Act 2013 will be treated as the cut-off date, and for non-titleholders the start date of project census survey for that sub-project will be the cut-off date. In case of acquisition by Private negotiations, cut-off date is the first date of notification shall be Section 11 (1) for Title holders. Note: In case of longer alignments with possibilities of change in route alignment, project authorities may establish two cut-off dates for two different sections.
- Encroacher: Any person illegally occupying public property by extending their land boundary or a portion of their building onto the existing government land or RoW is an encroacher.
- Kiosk: A kiosk is a booth/stall/cabin/cubicle made of wood or iron or any other building material which could be shifted to another location as a single unit without much damage and

is used for carrying out petty business/ commercial activities and has been in operation/existence prior to cut off date;

- Landowner: A person who is an allottee or a grantee of any land under any scheme of the Government under which such allotment or grant is to mature into ownership, who has mortgaged his land (or any portion thereof) or who has permanent rights and interest in land;
- Landless agricultural labourer: A person who does not hold any agricultural land and who has been deriving his main income by working on the lands of others as subtenant or as an agricultural labourer prior to the cut-off date.
- Livelihood losers: Persons losing their livelihood are individual members of the DHs, who are at least 18 years of age and are impacted by loss of primary occupation or source of income.
- Non-agricultural labourer: means a person who is not an agricultural labourer but is primarily residing in the affected area for a period of not less than five years immediately before the declaration of the affected area and who does not hold any land under the affected area but who earns his livelihood mainly by manual labour or as a rural artisan immediately before such declaration and who has been deprived of earning his livelihood mainly by manual labour or as such artisan in the affected area;
- Major Impact: The DPs suffering the following impacts and requiring relocating are categorized as Major Impacted DPs: (i) loss of place of dwelling, (ii) loss of place of business; (iii) loss of livelihood; (iv) loss of agricultural productive land of marginal farmers; those who become marginal farmers or landless after acquisition;
- Marginal Farmer: A cultivator with an un-irrigated land holding up to one hectare or irrigated land holding up to one-half hectare;
- Market value means the value of land determined in accordance with section 26 of RFCLARR Act 2013;
- Minor Impact: A PAP suffering minor impact is one who is affected to a lesser degree than the major impacts defined above.
- Minimum Wages means the minimum wage of a person for his/her services/labor by type of trade per day as stipulated by Department of Labor of the project state.
- Non-Perennial Crop: Any plant species, either grown naturally or through cultivation that lives for a season and perishes with harvesting of its yields has been considered as a non-perennial crop in the project.
- Non-titleholder: Non-titleholders include Affected persons/families/ households such as encroachers, squatters,etc.; with no legal title to the land, structures and other assets adversely affected by the project.
- Occupier: means a member of a Scheduled Tribes community in possession of forest land prior to the 13th day of December, 2005;
- Project: Project refers to the Second Dam Rehabilitation and Improvement Project
- Project Affected Area: Refers to the area of village or locality under a project for which land will be acquired under RFCTLARR Act 2013 through declaration by Notification in the Official Gazette by the appropriate Government or for which land belonging to the Government will be cleared from obstructions;
- Project Affected Person (PAP): Any tenure holder, tenant, Government lessee or owner of other property, or non-titleholder who on account of the project has been affected from such land including plot in the *abadi* or other property in the affected area will be considered as PAP;
- Project Affected Household (PAH): A social unit consisting of a family and/or non-family members living together, and is affected by the project negatively and/or positively;
- Project Displaced Person (PDP): Any tenure holder, tenant, Government lessee or owner of other property, or non-titleholder who on account of the project has been involuntarily displaced from such land including plot in the abadi or other property will be considered as PDP. A displaced will always be a PAP but all PAP may not be PDP;

- Perennial Crop: Any plant species that live for years and yields its products after a certain age of maturity is a perennial crop. Generally, trees, either grown naturally or horticulturally and yield fruits or timber have been considered as perennial crop in the project. For example, tamarind, coconut, mango, teak, neem etc. are perennial crops.
- Permanent Buildings or Pucca Structure: Buildings of a permanent construction type with reinforced concrete.
- Replacement Cost: A replacement cost/value of any land or other asset is the cost/value equivalent to or sufficient to replace/purchase the same land or other asset; and has been provided in the Entitlements;
- Resettlement Area means an area where the affected families who have been displaced because of land acquisition, are resettled by the project authority/appropriate Government;
- Residual Land: Residual land can be defined as the remaining portion of land left with the owner of the holding after acquisition of land by the project.
- Sharecroppers: Persons who cultivate land of a titleholder on terms of sharing income there from with the titleholder.
- Small Farmer: A cultivator with an un-irrigated land holding up to two hectares or with an irrigated land holding up to one hectare, but more than the holding of a marginal farmer.
- Semi-Permanent Building or structure: Buildings of a semi-permanent type with tiled roof and walls not of concrete or permanent brickwork.
- Scheduled Areas means the Scheduled Areas as defined in the constitution; includes both Schedule V and VI areas in the country.
- Squatter: A person who has settled on public/government land, land belonging to institutions, trust, etc. and or someone elseôs land illegally for residential, business and or other purposes and/or has been occupying land and building/asset without authority;
- Tenant: A person who holds/occupies land-/structure of another person and (but for a special contract) would be liable to pay rent for that land/structure. This arrangement includes the predecessor and successor-in-interest of the tenant but does not include mortgage of the rights of a landowner or a person to whom holding has been transferred; or an estate/holding has been let in farm for the recovery of an arrear of land revenue; or of a sum recoverable as such an arrear or a person who takes from Government a lease of unoccupied land for the purpose of subletting it;
- Temporary Building/Kutcha structure: Temporary building or structure means a temporary type of structure, which includes buildings with roofs constructed of thatch, galvanized iron or asbestos.
- Women Headed Household (WHH): A household that is headed by a woman and does not have an adult male earning member is a Woman Headed Household. This woman may be a widowed, separated or deserted person.
- Vulnerable group: This includes Scheduled Caste. ST, family/household headed by women/female, disabled, handicapped, Below Poverty Line (BPL) families; widows; and persons above the age of 65 years irrespective of their status of title (ownership). Vulnerable groups would also include those farmers who (after acquisition of land) become small/marginal farmers. For such cases, total land holding of the landowner in that particular revenue village will be considered in which land has been acquired;
- Wage earner: Wage earners are those whose livelihood would be affected due to the displacement of the employer. The person must be in continuous employment for at least six months prior to the cut-off date with the said employer and must have reliable documentary evidence to prove his/her employment.

Entitlement Matrix

8. Under this RPF, adopted for the project, several categories of project affected persons are recognized with varying eligibility for compensation and assistance packages in the entitlement matrix below **Table 1.**

9. In accordance with the principles of this resettlement policy framework, all displaced households and persons will be entitled to a combination of compensation packages and resettlement assistance depending on the nature of ownership rights on lost assets and scope of the impacts including socio-economic vulnerability of the displaced persons and measures to support livelihood restoration. The affected persons will be entitled to the following five types of compensation and assistance packages:
   a) Compensation for the loss of land, crops/ trees at their replacement cost;
   b) Compensation for structures (residential/ commercial) and other immovable assets at their replacement cost;
   c) Alternative housing in case of physical displacement;
   d) Assistance in lieu of the loss of business/ wage income, loss of agriculture livelihoods and income restoration assistance;
   e) Assistance for shifting and provision for the relocation site (if required), and
   f) Rebuilding and/ or restoration of community or common property resources/facilities.

10. In case where a State Government through any Act or Gazette Notification or as approved by any authority of State Government (duly authorized for the purpose) as per their approved procedure has fixed a rate for compensation of land and is higher than the provisions under the project, the same may be adopted by the Competent Authority in determining the compensation for land. Similarly, in case where a State Government through any Act or Gazette Notification or as approved by any authority of State Government (duly authorized for the purpose) as per their approved procedure has fixed a rate for resettlement and rehabilitation assistance and is higher than the provisions under the project, the same may be adopted by the Project Authority.

Table 1: Entitlement Matrix

Sl. No.	Impact	Entitled Unit	Entitlement Details
A. Loss of Private Agricultural, Home-Stead& Commercial Land			
1	Loss of Land (agricultural, homestead, commercial or otherwise)	Affected family (Land owner/Titleholder family and families with traditional land right/occupiers)	For all land acquired through RFCTL&RR Act,2013; or land taken through Private Negotiation, i. Compensation/lease amount shall be calculated and payable in accordance with Sections 26 to 30 and Schedule I[2] of RFCTLARR Act 2013[3] ii. **Partial Impact on Land:** In case only part of any land plot is affected, and its owner desires the whole plot be acquired on grounds that the plot has become uneconomic or has been severed due to LA (under Section 94), the competent authority can award compensation for remaining part of the plot or award 25% of actual value upto of the remaining land holding as additional compensation, allowing the owner to retain the remaining land plot, if agreeable. iii. For all land acquired RFCTLARR Act, 2013 Rehabilitation and Resettlement Assistances shall be as per Schedule II of Act 2013 iv. Each affected family shall be given a one-time "Resettlement Allowance" of Rs. 50,000/- only. v. If as a result of land acquisition, the Affected family becomes landless[4] or is reduced to the status of a ñsmallò or ñmarginalò farmer, following shall be payable • assistance amount of Rs. 5.0 lakhs; OR • annuity policies that shall pay not less than two thousand rupees per month Per family for twenty years vi. Support for livelihood restoration/enhancement: Counselling, skill development/Training support shall be imparted through by RAP implementing agency, based on needs assessments This assistance includes cost of training and financial assistance for travel/conveyance and food. Project work opportunities too would be explored. vii. Refund of stamp duty and registration charges

[2]Schedule I comprises compensation at market value of the land, including valuation of all assets (structures, trees, crops) attached to the land; multiplication factor of 1 as applicable; plus, a ñSolatiumò equal to the amount of compensation (100%) for land including all attached assets

[3] Schedule II provisions that would be relevant to this project are: i) sum of Rs. 5,00,000/-; ii) subsistence grant for displaced families; iii) transportation cost for displaced families; iv) one-time financial assistance for cattle shed; v) one-time financial assistance for artisans/small traders; vi) one time resettlement allowance; vii) waiver of stamp duty and registration charges; vii) Provision of housing units in case of displacement

[4]Land Less defined as a particular land loser will be land less after acquisition of particular piece of land & no single unit of land is in his/her possession.

Sl. No.	Impact	Entitled Unit	Entitlement Details
			incurred for replacement land to be paid by the project; replacement land must be bought within a year from the date of payment of compensation to project affected persons
B. Loss of Private Structures (Residential/Commercial)			
2	Structure within the Corridor of Impact (CoI)	Title Holder/ Owner	i. Compensation in accordance with Sections 26 to 30 and Schedule I of RFCTLARR Act 2013 ii. Right to salvage material from affected structures iii. Three months advance notice to vacate structure iv. For those losing cattle shed, a one-time assistance of Rs. 25,000/-would be payable v. For each affected family of an artisan or self-employed or own non-agricultural land, that is displaced and must relocate, a one-time assistance of Rs. 25,000/- would be payable; and vi. One-time subsistence grant of Rs. 36,000/- for each affected family who are displaced and require to relocate; vii. One-time financial assistance of Rs. 50,000/-for each displaced family towards shifting/transportation cost for shifting of the family, building materials, belongings and cattle viii. Refund of stamp duty and registration charges for purchase of new alternative houses/shops at prevailing rates on the market value as determined. Alternative houses/shops must be bought within a year from the date of payment of compensation ix. In case of partial impact, 25% additional award to be paid on compensation award for the affected part of the structure to enable damage repair, where the owner/occupier of his/her own is interested to retain the remaining part of the structure, provided the unimpaired continuous use of such structure is possible without hazards x. For commercial PAPs, Support for livelihood restoration/enhancement: Counselling, skill development/Training support shall be imparted through by RAP implementing agency, based on needs assessments This assistance includes cost of training and financial assistance for travel/conveyance and food. Project work opportunities too would be explored.
3	Structure within the Corridor of Impact (CoI)	Tenants/ Lease Holders	i. Registered lessees will be entitled to an apportionment of the compensation payable to structure owner as per applicable local laws. ii. One-time financial assistance of Rs. 50,000/- as transportation and relocation cost. In case of tenants, three months written notice will be provided to vacate. In case three monthsô notice to vacate structures is not provided, then three monthsô rental allowance will be provided in lieu of notice.
C. Loss of Trees and Crops			
4	Standing Trees, Crops	Owners and beneficiaries (Registered/ Un-registered	i. Cash compensation as estimated under Section 29(3) of Act[5] to be paid at the rate estimated by:

[5]The collector for the purpose of the assessing the value of the standing crops damaged during the process of land acquisition

Sl. No.	Impact	Entitled Unit	Entitlement Details
	within the Corridor of Impact (CoI)	tenants, contract cultivators, leaseholders & sharecroppers	• The Forest Department for timber trees • The State Agriculture Extension Department for crops • The Horticulture Department for fruit/flower bearing trees. ii. Three months advance notice to project affected persons to harvest fruits, standing crops and removal of trees, or compensation in lieu as determined above. Registered tenants, contract cultivators & leaseholders & sharecroppers will be eligible for compensation for trees and crops as per the agreement document between the owner and the beneficiaries. Un-registered tenants, contract cultivators, leaseholders & sharecroppers will be eligible for compensation for trees and crops as per mutual understanding between the owner and the beneficiaries
D. Loss of Residential/ Commercial Structures to Non-Title Holders			
5	Structures within the Corridor of Impact (CoI) or Govt. land	Owners of Structures or Occupants of structures (Encroachers, Squatters) identified as per Project Census Survey	**For loss of House** i. Compensation at PWD BSR without depreciation for structure ii. One-time subsistence grant of Rs. 36,000 (Rs. 3000 x 12) or Rs. 36,000/- payable over a period of 12 months/ one year iii. Shifting/transportation assistance of Rs.50,000/- iv. Encroachers shall be given three monthsô notice to vacate occupied land. v. Right to salvage the affected materials **For loss of shop[6]/cattle shed or work shed** vi. Compensation at PWD BSR without depreciation for structure vii. One-time subsistence grant of Rs. 36,000 (Rs. 3000 x 12) or Rs. 36,000/- payable over a period of 12 months/ one year viii. One-time rehabilitation grant of Rs. 25,000/- for reconstruction of affected shop given to artisans ix. Shifting/transportation assistance of Rs.50,000/- x. Encroachers /Squatters shall be given three monthsô notice to vacate occupied land xi. Right to salvage the affected materials xii. Support for livelihood restoration/enhancement: Counselling, skill development/Training support shall be imparted through by RAP implementing agency, based on needs assessments This assistance includes cost of training and financial assistance for travel/conveyance and food. Project work opportunities too would be explored.
E. Loss of Livelihood			

may use the services of experienced persons in the field of agriculture as may be considered necessary by him.

[6]Small shop includes commercial kiosks and shanties where business is carried out

Sl. No.	Impact	Entitled Unit	Entitlement Details
6	Loss of employment in non-agricultural activities or daily agricultural wages or other wage earners	Livelihood loser	Subsistence allowance equivalent to Minimum Wages/Minimum Agricultural Wages[7] for 3 months Only agricultural labourers who are in fulltime / permanent employment of the land owner, or those affected full time employees of the business, will be eligible for this assistance. *Seasonal agricultural labourers will not be entitled for this assistance.*
7	Temporary loss of business	Business owners	Compensation for temporary loss of income due to loss of access shall be determined as per data on income collected during SIA, and paid commensurate to the period of loss of income
F. Additional Support to Vulnerable Group			
8	Families within the Corridor of Impact (CoI)	Vulnerable affected families	i. One-time Resettlement Allowance of Rs. 50,000/- ii. Support for livelihood restoration/enhancement: Counselling, skill development/Training support shall be imparted through by RAP implementing agency, based on needs assessments This assistance includes cost of training and financial assistance for travel/conveyance and food. Project work opportunities too would be explored. iii. Additional Subsistence Grant of Rs. 50,000/- for displaced families belonging to **Scheduled Caste and Scheduled Tribe category** iv. Displaced vulnerable households will be linked to the government welfare schemes, if found eligible and not having availed the scheme benefit till date.
G. Loss of Community Infrastructure/Common Property Resources			
8	Structures & other resources (e.g. land, water, access to structures etc.) within the Corridor of Impact (CoI)	Affected communities and groups	Reconstruction of community structure and common property resources, will be done in consultation with community
I. Temporary Impact During Construction			
12	Land and assets temporarily impacted during construction	Owners of land and assets	Temporary losses incurred during construction will be paid by the contractor as determined below: i. Damaged structure: Compensation will be estimated as per latest Basic Schedule of Rates (BSR) of Public Works Department, without depreciation ii. Crops and Trees: Compensation for crops & tree damages will be estimated as per Section 29(3) of RFCTLARR Act[8]. All temporary use of land outside ROW, would be done based on written / prior approval of landowner and contractor
J. Provisions at Resettlement Sites/Vendor Markets			
12	Loss of residential and	Displaced titleholders and non-titleholders	i. Appropriate permanent housing with minimum specified floor area at resettlement sites providing

[7] As per rates issued by Department of Labor, Government of project state for different skills and trades

[8] The collector for the purpose of the assessing the value of the standing crops damaged during the process of land acquisition may use the services of experienced persons in the field of agriculture as may be considered necessary by him.

Sl. No.	Impact	Entitled Unit	Entitlement Details
	commercial structures		basic services and other provisions laid down in Schedule III (that details the type of infrastructure amenities at resettlement colonies) of RFCLTARR Act, 2013 ii. **For a house is lost in rural areas**, a constructed house shall be provided as per the Pradhan Mantri Awas Yojana specifications or equivalent cost of the constructed house in lieu, shall be payable, but not less than Rs. 1.3 Lakh[9]. **for a house lost in urban areas,** a constructed house shall be provided, which will be not less than 50 sq mts in plinth area, OR if the family opts not to take the house offered, shall get a one-time financial assistance for house construction, which shall not be less than Rs. 1.5 lakhs. iii. This provision in lieu of provision of alternative house shall be provided to all displaced families without discrimination including resident owners, occupant land assignees, long term lessees and displaced squatters iv. The benefits listed above shall also be extended to any affected family which is without homestead land and which has been residing in the area as identified during Census survey v. One displaced family will be eligible for only one land plot at resettlement site and only one shop in the vendor market vi. Vulnerable PAPs will be given preference in allotment of shops in vendor market. vii. The provision shall be extendable to mixed use structures fulfilling residential and commercial purposes in owner as well as untitled categories.

Note: All unit costs will be updated to 2020 prices or revised to the year of payment, prior to payment

11. Besides the provisions listed above to address construction stage impacts, mitigation measures with specific responsibilities will be provided in the corridor specific ESMPs for mitigating construction stage impacts.

Updated Resettlement unit costs

12. The project has adopted the unit costs for R&R assistance as available in LARR Act, 2013. All these unit have been updated based on the Consumer Price Index for Agricultural labourerôs (CPIAL)[10] for India during the period between January 2014 to March 2020 and are presented in **Table 2.**

[9] PMAY- Pradhan MandriAwas Yojana stipulates a central Assistance of Rs.1.3 Lakh for Beneficiary Led Individual House Construction.
[10] January 2014: 757 CPAIL Index e sourced from - source: https://pib.gov.in/newsite/mbErel.aspx?relid=104657 and December 2019: (source http://labourbureau.gov.in/LBO_indnum.htm) ï only available till December 2019

Table 2: Unit rates and revised as of December 2019			
No	**Entitlement**	**Unit rates as of January 2014 (in INR)**	**Revised as of December 2019 (rounded off to nearest INR)**
1	Livelihood assistance (Lump sum)	5,00,000	670000
2	Livelihood assistance (Annuity)	2,000/per month for 12 months x 20 years	2,000/per month for 12 months x 20 years (to be adjusted every year as per CPIAL index
3	One-time assistance for loss of Cattle shed/petty shop	25,000	33250
4	One-time assistance for displaced artisan/small traders/small shops	25,000	33250
5	Cash in lieu of house, if opted (as per indexed and updated figures at time of payment)		0
	Rural	1.3 lakhs	Amounts to be updated as per PMAY guidelines as prevalent at the time of implementation
	Urban	1.5 lakhs	
6	Transportation / Shifting assistance for displaced	50,000	66500
7	Subsistence allowance for displaced @ INR 3000 per month for 1 year	36,000	47880
8	One-time Resettlement Allowance	50,000	66500

Any other monetary allowance other than those listed above will be indexed to year of payment prior to payment

Valuation of Lost and Affected Assets

13. Compensation for Land and Assets attached to the Land: Land will be acquired either through LA Act 2013 or Private Negotiations method:
    a. All compensation and R&R assistances will be processed as per RFCTLARR Act 2013.
    b. Compensation of the land to be acquired in urban and rural area: (market value x 1) plus value of assets attached to land or building) plus (100% solatium) = Land Compensation Price in case of acquisition by Act or amount determined as per mutual consent/ negotiations basis.

14. Compensation for Structures: The replacement value of houses, buildings and other immovable properties will be determined based on latest PWD Basic Schedule of Rates for valuation purpose as on date without depreciation. While considering the PWD rate, IA will ensure that it uses the latest rates for the structures. Wherever the SR for current financial year is not available, the Competent Authority will update the BSR to current prices based on approved previous year escalations. Compensation for properties belonging to the community or common places of worship will be provided to enable construction of the same at new places through the local self-governing bodies in accordance with the modalities determined by such bodies to ensure correct use of the amount of compensation.

15. Compensation for Trees: Compensation for trees will be based on their market value. Loss of timber bearing trees will be compensated at their replacement cost and compensation for the loss of crops, fruit bearing trees will be decided in consultation with the Departments of Forest, Agriculture and Horticulture. In line with the provision of RFCTLARR Act 2013, 100% solatium will be added to the assessed value of the trees. Prior to taking possession of the land or properties, the compensation will be fully paid and affected persons will have the opportunity to harvest crops/trees within 15 days from the date of payment of compensation.

16. If the residual land, remaining after acquisition, is unviable, the owner of such land/property will have the right to seek acquisition of his entire contiguous holding/property provided the residual land is less than the minimal land holding of the district/State. Ownerôs choice in this regard should be obtained either prior to payment in case of direct purchase or prior to declaration of award.

17. Further, all compensation and assistance will be paid to PAPs at least 1 month prior to displacement or dispossession of assets. In case of compensation payable following acquisition through private negotiations, direct payment transfer of single instalment payment will be done to beneficiary bank account. The IA will assist beneficiaries to open a Bank account, in case they do not have Bank Account and in special cases, provide the payment through cheque.

18. Even after payment of compensation, displaced PAPs would be allowed to take away the materials salvaged from their dismantled houses and shops and no charges will be levied upon them for the same. A notice to that effect will be issued intimating that PAPs can take away the materials so salvaged within 15 days of their demolition; otherwise, the same will be disposed by the project authority without giving any further notice. Trees standing on the land owned by the government will be disposed of through open auction by the concerned Revenue Department/ Forest Department.

19. There shall be no income tax deductions in line with Sec 96 of the RFCTLARR Act. In the event any deductions are made toward taxes, such amounts will have reimbursed.

20. Livelihood Restoration/Enhancement: Each PAPs whose income or livelihood is affected by a subproject will be assisted to improve or at least restore it to pre-project level. Income restoration schemes will be designed in consultation with affected persons and considering their resource base and existing skills. IA will identify the number of eligible PAPs/DPs and will conduct training need assessment in consultations with the affected persons so as to develop appropriate income restoration schemes.

21. The IA with support of specialised agency will examine local employment opportunities and produce a list of possible income restoration options. Suitable trainers or local resources will be identified by IA in consultation with local training institutes. Disadvantaged and vulnerable households will get special assistance in this regard. The IA will also facilitate affected person access to Government schemes that could help them to restore income and livelihood. In addition, the entitlement matrix provides for one-time income restoration allowance.

22. It is the responsibility of the IA to ensure that the RAP is successfully implemented in a timely manner. The implementation schedule needs to be updated periodically and monitored judiciously. The objectives of the RAP shall be deemed achieved only when the following criteria are met:

    - All legal compensation both for land and structure and other assets (trees, crops, etc.) are be paid;

- All eligible PAPs must have received their due R&R entitlements;
- Any relocation or resettlement and economic rehabilitation required is fully completed.
- All project affected common property resources must be replaced/restored re-established or suitably augmented

Estimation of land requirement and Preparation of Land Acquisition Plans

23. The existing right-of-way (RoW) or ownership shall be established based on revenue maps and field measurement books (FMB), which will be the basis for detailed design and wherever possible the proposed land taking or proposed RoW shall be minimized to reduce land acquisition and resettlement impacts. Land Plan Schedule present details of the land parcels to be acquired for the project and will be used for issuing notifications as per land acquisition act or for private negotiation by District Administration from PAPs.

24. The preparation process of LAP includes:

- Collection of Village map, jamabandi etc., and record of rights from the Tehsil Office
- Based on the final designs and spot inspection sketches for LA are made
- Calculation of land acquisition requirement in a particular survey number is arrived based on the jamabandi;
- Field verification of available project land is done from revenue department;
- Identify and Stakeout on ground of the areas project authority land where private land needs to be acquired as per approved proposed alignment designs;
- Measurement of land proposed to be acquired to be done along with the Revenue Department. After field verification land are transferred to each survey sketch;
- The LA plans have to be finally signed by the concerned authorities

25. Census Survey Updating: If the PAPs are not displaced and affected within two years from the census surveys key census socio-economic surveys will be updated once in two years, in order to keep the baseline date for measuring the living standards of the affected people.

Co-ordination with civil works

26. The land acquisition and resettlement implementation will be co-coordinated with the timing of procurement and commencement of civil works. The required co-ordination has contractual implications, and will be linked to procurement and bidding schedules, award of contracts, and release of encumbrance free land ions to the contractors. The project will provide adequate notification, counselling and assistance to affected people so that they are able to move or give up their assets without undue hardship before commencement of civil works and after receiving the compensation. The bid documents will specify the extent of unencumbered land to be handed over at the time commencement of works and subsequent milestones and this will be strictly followed to ensure that land is provided on a timely basis to the contractors and also plan implementation of land acquisition and resettlement in line with procurement and civil work time table.

27. **Table 3** lists the actions to be completed by different stages:

Table 3 – List of actions linked to civil works	
Stage of civil works	**Activities**
Before issuance of civil work bids	Preparation of Land Acquisition Plan and Strip Plan
	Preparation of RAP based on Social Impact Assessment comprising Census & Socio-Economic survey of affected persons and its disclosure
	List of encumbrance free area available for construction
	Issuance of draft Notification of the 11 Land Acquisition
	Appointment of Arbitrator
	Formation of Price Fixation Committees and Negotiation Committees
Before award of civil works contract	Appointment of RAP implementation agency/NGO
	Private Negotiations with Titleholders by Price Fixation Committees and Negotiation Committees & Award
	Identification & Verification of PAPs by NGO
	Valuation of structures
	Preparation of Micro Plans for Rehabilitation & Resettlement by the NGO
	Issuance of ID Cards
	Update draft Resettlement Plan to reflect surveys, consultations, design changes, and due diligence results
	Consultations disclosure, & awareness generation
	R&R Award for Titleholders & Non-Titleholders
	Preparation and Approval of Micro Plans
	Disbursement of R&R assistance amounts
Before handover of land to contractor	List of encumbrance free stretches available for construction by first & second milestone by dates
	Handover of land to contractors first & second milestone

28. **Support Agency/NGOs:** The Project activities if leading to physical or economic relocation disturbs the present activities of PAPs and therefore there is a need to establish and stabilise their livelihood. While all tasks relating to Land Acquisition are taken care by the Land Acquisition Officer and his staff, the implementation of RAP is the responsibility of the ESMU. The NGO or any other implementing agencies will help in implementing various components of the RAP, particularly the use of compensation and rehabilitation assistance for more productive purposes like purchase of land, self-employment, etc. The NGO(s) selected will have to work directly under the social development officer, who will oversee implementation of RAP. With regards to the above, the NGO shall,

- Co-ordinate (and impart wherever required) the training and capacity building of the PAPs, for upgrading their skills for income restoration. This will include the training to be given by the NGO to women self-help-group members in accounting, record maintenance, skill acquisition in the chosen enterprise, and marketing, etc.
- Help the PAPs in realizing and optimizing the indigenous technology knowledge (ITK) through use of local resources.
- Define, evolve, and explore alternative methods of livelihood using the local skill and resources.
- Contact financial institutions like NABARD, SIDBI, RMK and the Lead Bank of the area in accessing the credit required by the individual as well as groups of PAPs and the women's

groups from the PAFS. The NGO shall maintain a detailed record of such facilitation, and plan for each PAF to repay the loan.

- Establish linkages with the District administration for ensuring that the PAPs are benefited from the schemes available and those they are entitled to. The focus for this component of the NGOs work shall be the vulnerable PAPs for their income restoration. The NGO shall maintain a detailed record of such facilitation. ToR for hiring of NGOs shall be submitted by IA and approved by Bank.

Resettlement Budget

29. The resettlement budget will comprise itemized estimate of compensation for land, structures, trees, crops, various resettlement assistances, rehabilitation or replacement of CPRs including land, if government land is not available, institutional cost, contingency, additional studies if required, cost towards implementation, engagement of RAP implementation agency, evaluation consultants, etc. Based on the initial estimates provided by the RAP preparation consultants and later by the RAP implementation agency, the SPMUshall update and prepare final estimates for compensation and assistances payable. They shall jointly review the compensation for land with the Revenue department and with Public Works Department for cost of structures and CPRs. Based on these estimates the SPMU shall prepare a request for funds and submit the same through the Project Director to the Government of Project State for release of funds for disbursal. Each sub-project specific RAP shall provide for contingency costs to meet any unforeseen expenditure.

30. The cost of LA and R&R has been budgeted as part of the overall project costs and shall be met with State Government funds. The World Bankôs loan will be available for costs such as works, purchase of goods and NGO consultancy, M&E services, if required.

Outline of a Resettlement Action Plan

31. Resettlement Action Plan will be prepared if involuntary resettlement impacts are found in the ESDD study. The RAP will include the census of PAPs, and their entitlements to restore losses, institutional mechanisms and schedules, budgets, assessment of feasible income restoration mechanisms, grievance redress mechanisms, and participatory results monitoring mechanisms. The RAP should be broadly structured in the following manner:

    (i) General description of the project,

    (ii) Scope of Land Acquisition and Resettlement

    (iii) Socio-economic Information

    (iv) Objectives, Policy Framework, and Entitlements

    (v) Gender Impact and Mitigative Measures

    (vi) Information Dissemination, Consultation, Participatory Approaches, and Disclosure Requirements

    (vii) Grievance Redress Mechanisms

    (viii) Relocation of Housing and Settlements

    (ix) Compensation, Relocation, and Income Restoration

    (x) Institutional Framework

    (xi) Resettlement Budget and Financing

    (xii) Implementation Schedule

(xiii) Monitoring and Reporting

(xiv) Arrangements for adaptive management

Outline of Livelihood Support Plan

32. The purpose of this document is to set out a process to be followed to identify the families requiring livelihood improvement support on account of loss of their existing livelihood due to project interventions. The livelihood support plan is aimed at providing assistance and put in place an action plan duly taking into account inputs from each of the identified families assessing the opportunities so that the identified families can be assisted in restoring their livelihoods. The document also describes monitoring mechanism to verify and effectively implement the proposed action plan.

- Livelihood Restoration Plan : Need & Purpose
- Existing efforts in Livelihood Improvement and Current Progress
- Profiles of the area - Availability and Accessibility of Livelihoods
- Methodology for Identifying the families requiring livelihood support
- Consultative Process for Developing Action Plan
- Outline of Action Plan
- Implementation approach
- Monitoring Mechanism and Monitoring Register
- Establishing linkages for sustainable livelihoods improvement

Comparison of ESF versus RFCTLARR Act 2013 and Measures to address gaps

S.No	Environment and Social Framework 2016	Provisions in RFCTLARR Act, 2013	Measures to bridge the Gap between Policy/Acts and ESF, 2016 of World Bank
1	Avoid involuntary resettlement wherever feasible	Social Impact assessment (SIA) should include: (i) whether the extent of land proposed for acquisition is the absolute bare minimum extent needed for the project; (ii) whether land acquisition at an alternate place has been considered and found not feasible [Ref: Section 4 sub-section 4(d) and 4(e)]	ESDD will be conducted for all sub-project Dams under DRIP 2 and for all High an Substantial Risk projects ESIA will be carried out.
2	If unavoidable, minimize involuntary resettlement by exploring project and design alternatives	None	Usage of principle of mitigation hierarchy to analyse alternatives to avoid/minimize/compensate or offset
3	To enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels	None	Would be ensured through suitable provisions in the RAP
4	To improve the standards of living of the displaced poor and other vulnerable groups.	None	Would be ensured through suitable provisions in the RAP
5	Screen the project early on to identify past, present, and future involuntary resettlement impacts and risks.	While the policy does not specify any requirement for screening of the project at an early stage for resettlement impacts and risks, it requires carrying out social impact assessment before any proposal for land acquisition (section-16).	Screening of all sub-projects towards enabling identification of the potential resettlement impacts and associated risks will be carried out.
6	Determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks **(ESS-1)**	Carry out census of affected people and their assets to be affected, livelihood loss and common property to be affected; R&R scheme including timeline for implementation. **(**Section: 16. (1) and (2)).	The ESS-1 requirements will be followed based on which census and socio-economic has been carried out
7	Carryout consultations with displaced persons, host communities and concerned	• Consultation with Panchayat, Municipality, to carry out SIA. (*Section: 4. (1))* • Public hearing for Social Impact Assessment.	All impacted persons ï land owners and users of land (non-titleholders such as squatters and encroachers) would be

S.No	Environment and Social Framework 2016	Provisions in RFCTLARR Act, 2013	Measures to bridge the Gap between Policy/Acts and ESF, 2016 of World Bank
	NGOs. Inform all displaced persons of their entitlements and resettlement options **(ESS-10)**	*Section: 5.* • Discussion on and Public hearing for Draft Rehabilitation and Resettlement Scheme *Section: 16. (4). and (5).*	consulted. The ESS-10 requirements will be followed
8	Establish grievance redressal mechanism (**ESS-1 and ESS-5**)	• Establishment of Land Acquisition, Rehabilitation and Resettlement Authority for disposal of disputes relating to land acquisition, compensation, rehabilitation and resettlement. *Section: 51. (1). and Section: 64.* • The Requiring Body or any person aggrieved by the Award passed by an Authority under section 69 may file an appeal to the High Court within sixty days from the date of award. *Section: 74. (1). and (2).*	A project level GRM will be included in the RAP and RPF/ESMF.
9	Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase. (**ESS-1 and ESS-5**)	Social Impact Assessment is must before taking final decision on acquisition of land followed by preparation of R&R Scheme	Social Impact Assessment, consultations with relevant stakeholders ï affected and interested parties will be done
10	• Improve or restore the livelihoods of all displaced persons through • (i) land-based resettlement strategies • (ii) prompt replacement of assets with access to assets of equal or higher value, • (iii) prompt compensation at full replacement cost for assets that	• Land for land in case of irrigation projects to the landowners losing agricultural land. Land for land in every project to landowners belong to SC and ST community up to 2.5 acres of land. *Section: 31 and The Second Schedule* • Provision of housing units in case of displacement. Offer for developed land. *Section: 31 and The Second Schedule* • Recognizes 3 methods and whichever is higher will be considered which will be multiplied by a factor given in The First	Structure to be compensated at replacement cost without depreciation, besides commensurate provisions to address livelihood issues. Specific provisions to address impacts on non-titleholders need to be incorporated

S.No	Environment and Social Framework 2016	Provisions in RFCTLARR Act, 2013	Measures to bridge the Gap between Policy/Acts and ESF, 2016 of World Bank
	cannot be restored, and • (iv) additional revenues and services through benefit sharing schemes where possible. (**ESS-5**)	Schedule. Compensation given earlier will not be considered; If rates not available floor price can be set; Steps to be taken to update the market value. (*Section 26 and The First Schedule) Provision* for employment, fishing rights, annuity policy etc (*Section: 31 and The Second Schedule)*	
11	If there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; provide transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required. (**ESS-5**)	• A family as a unit will receive R&R grant over and above the compensation and those who are not entitled to compensation. *Section: 31* • Homeless entitled to constructed house, land for land in irrigation projects in lieu of compensation, in case of acquisition for urbanization 20% of developed land reserved for owners at a prices equal to compensationôjobs or onetime payment or annuity for 20 yearsôsubsistence grant, transportation, land and house registered on joint name husband and wife, etc. *Second Schedule* • Provision for infrastructural amenities in resettlement areas. Section: 32 and Third Schedule	Relocation is not envisaged under the proposed sub-project as designs are avoiding full impact on structures
12	Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. (**ESS-5**)	• Landless people are considered and eligible for R&R grants. *Section:16. (2).* • Widows, divorcees, abandoned women will be considered as separate family and entitled to R&R provisions *Section: 3. (m)* • Homeless entitled to constructed house and landless entitled to land in	Commensurate measures would be provided for in the RAP

S.No	Environment and Social Framework 2016	Provisions in RFCTLARR Act, 2013	Measures to bridge the Gap between Policy/Acts and ESF, 2016 of World Bank
		irrigation project. *Second Schedule* • Special provision for Scheduled Caste/Scheduled Tribe; *Section: 41.* • Additional provisions for SC&ST for land for land in irrigation projects, additional sum over and above the subsistence grant. *Second Schedule*	
13	If land acquisition is through negotiated settlement, ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status. (**ESS-5**)	R&R entitlements apply in case of land acquired/purchased for PPP projects and for Private Companies. *Section: 2. (2), and 46.*	Provisions as applied in the RFTCLARR Act will be used and additional measures where required will be used for vulnerable and disadvantaged persons.
14	• Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets. (**ESS-5**)	• The Act recognizes: *Section: 3 (c)* • a family which does not own any land but belong to the family of an agricultural labourer, tenant, sharecroppers, or artisans or working in affected area for three years prior to the acquisition of the land • the Scheduled Tribes and other traditional forest dweller who have lost any of their forest rights • family whose primary source of livelihood for three years prior to the acquisition of the land is dependent on forests or water bodies and includes gatherers of forest produce, hunters, fisher folk and boatmen • a family residing or earning livelihoods on any land in the urban areas for preceding three years or more prior to the	Under this project, provision would be made to that in the case of land acquisition, the date of publication of preliminary notification for acquisition under Section 4.1 of the LAA will be treated as the cut-off date for title holders, and for non-titleholders such as squatters the start date of the project census survey.

S.No	Environment and Social Framework 2016	Provisions in RFCTLARR Act, 2013	Measures to bridge the Gap between Policy/Acts and ESF, 2016 of World Bank
		acquisition of the land	
15	Prepare a resettlement plan / indigenous peoples plan elaborating on displaced personsô entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule. (**ESS-5 and ESS-7**)	• Preparation of Rehabilitation and Resettlement Scheme including timeline for implementation. *Section: 16. (1) and (2).* • Separate development plans to be prepared. *Section 41*	Where required, RAP will be prepared. IPDP or TDP is not required.
16	Disclose a draft resettlement plan, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to displaced persons and other stakeholders. Disclose the final resettlement plan and its updates to displaced persons and other stakeholders. (**ESS-10**)	• The draft Rehabilitation and Resettlement Scheme prepared shall be made known locally by wide publicity in the affected area and discussed in the concerned Gram Sabhas or Municipalities and in website. *Section: 16. (4)* • The approved Rehabilitation and Resettlement Scheme to be made available in the local language to the Panchayat, Municipality or Municipal Corporation and in website. *Section: 18.*	In addition to the publishing of the approved resettlement plan, the RAP and RPF includes provision for disclosure of the various documents pertaining to RAP implementation in accordance with Stakeholder Engagement Framework (SEF)
17	Include the full costs of measures proposed in the resettlement plan and indigenous peoples plan as part of projectôs costs and benefits. For a project with significant involuntary resettlement impacts and / or indigenous peoples plan, consider implementing the involuntary resettlement component of the project as a stand-alone operation. (**ESS-5**)	The requiring body shall bear the cost of acquisition covering compensation and R&R cost. *Section: 19. (2) and Section 95. (1)*	None
18	• Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation. (**ESS-5**)	• The Collector shall take possession of land after ensuring that full payment of compensation as well as rehabilitation and resettlement entitlements are paid within three months for the compensation and a period of six months for the	None

S.No	Environment and Social Framework 2016	Provisions in RFCTLARR Act, 2013	Measures to bridge the Gap between Policy/Acts and ESF, 2016 of World Bank
		monetary part of rehabilitation and resettlement entitlements. *Section: 38. (1)* • The Collector shall be responsible for ensuring that the rehabilitation and resettlement process is completed in all its aspects before displacing the affected families. *Section: 38. (2)*	
19	• Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports. (**ESS-5**)	• The Rehabilitation and Resettlement Committee, to monitor and review the progress of implementation of the Rehabilitation and Resettlement scheme and to carry out post-implementation social audits in consultation with the Gram Sabha in rural areas and municipality in urban areas. *Section: 45. (1)* • Set up National and State level Monitoring Committee to review and monitor progress. *Section 48-50*	The ESS-5 requirements will be followed.

Monitoring and evaluation indicators

Table 4 – Indicative monitoring Indicators for Physical Progress

Monitoring Indicators	Implementation Target	Revised Implementation Target	Progress this Month	% against Revised Implementation Target
Compensation for Structures, other assets (cattle sheds)				
Preparation and dissemination of leaflets to various stakeholders				
Preparation and approval of micro plans				
Number of joint bank accounts opened				
Issuance of identity cards				
Submission of monthly progress reports				
One time rehabilitation grant provided				
Livelihood Restoration Allowance for affected Categories				
Allowances paid to Vulnerable groups				
Community Assets rehabilitated/ restored				
No. of PAPs who have received training for livelihood restoration/enhancement				

Table 5 – Indicative monitoring indicators for financial Progress

Category	Estimated Cost (INR)	Progress this month
R&R Assistance		
RAP Implementation NGO Services		
M&E Services		

Table 6- Monitoring of Grievances received and redressed

Particulars	Quarters			
	Q1	Q2	Q3	Q4 & Cumulative Total
No. of cases referred to GRC				
No. of cases settled by GRC				
No. of cases pending with GRC				
Average time taken for settlement of cases				
No. of GRC meetings				
No. of PAPs moved court				
No. of pending cases with the court				

No. of cases settled by the court				

Table 7 - Indicative Impact Evaluation Indicators

Parameter	Breakup of parameter	Baseline (%)	Mid-Term (%)	End -Term (%)
Occupation of HH*	Agriculture			
	Trade/Business			
	Petty shop keeping			
	Agri labour			
	Non-Agri labour			
	Service			
Annual Income*	<75000			
	75001 - 1lakh			
	1lakh - 2.5lakh			
	2.5lakh - 5lakh			
Possession of Assets*	TV			
	Fridge			
	Cycle			
	Motor Cycle			
	Car			

Annexure 11: Guidance Framework for Biodiversity Conservation and Management Plan (ESS 6)

A. Background:

India is bestowed with distinctive floral and faunal biodiversity having aesthetic, cultural, commercial and genetic values. India has an extensive network of protected areas and wildlife sanctuaries for the protection of biodiversity, as well as internationally recognised sites of biodiversity such as RAMSAR wetlands, a UNESCO Natural World Heritage Site and Endemic Bird Areas and Important Bird Areas. The objectives of ESS 6 are particularly significant in the project and aim:

a) To protect and conserve biodiversity and habitats.
b) To apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity.
c) To promote the sustainable management of living natural resources.
d) To support livelihoods of local communities, including Indigenous Peoples, and inclusive economic development, through the adoption of practices that integrate conservation needs and development priorities.

Keeping in view the above objectives, the very purpose of developing the Biodiversity Conservation and Management Plan (BCMP) is to have net loss to ecology from project activities to be net negative. The plan development would involve two categories of areas:

1. Location of project close to or within a conservation areas or protected areas.
2. Location of project not located close to or within a conservation areas or protected areas.

The detailed area, as per guidelines given hereunder.

The projects located close to or within conservation / protected area shall require preparing biodiversity conservation plan, if there is likely impact on bio- diversity. If any cutting of trees or diversion of green area or forested area is involved, then compensatory tree plantation provision has to be made @ minimum five trees be planted for each tree loss. Adequate budget allocation shall be made for the same under Environmental Social Management plan (ESMP). Provision shall also be made for tracking survivability of the tree planted with minimum survivability rate of 70%. Additional tree shall be planted if required.

B. Need of a BCMP

The (BCMP) is to be prepared with key strategies for biodiversity conservation and its management. The ESMF thus includes screening and eligibility checklists to ensure exclusion of activities that would adversely affect biodiversity such as felling of trees, activities causing irreversible impacts to critical and natural habitats, activities causing forest fires, felling of trees without a permit, and activities that are inconsistent with forest working plans or Catchment area treatment plans.

The project construction activities close to biodiversity rich areas may have impact on valuable ecological resources/habitats and thus project activities are required to be screened for conservation and management, these could be:

1. Loss of vegetation
2. Disruption to faunal movement
3. Disruption to Avi Fauna
4. Threat to rare, endangered and threatened species.

There is a need to protect rich biodiversity of the area and steps need to be taken to conserve biodiversity of the area through effective planning and conservation measures.

C. Objectives:

The biodiversity conservation plan should meet the following stated objectives:

1. Outline requisite biodiversity protection and enhancement measures with stage of project activity viz planning stage, construction stage and operation stage
2. Defined responsibilities with allocated budget for responsibility for action
3. Ensure compliance to applicable legislation

D. Scope of BCP:

The biodiversity management plan shall be prepared before start of construction work and all the required resources must be planned in advance. The biodiversity management plan should meet the following requirements:

1. Identification of activities based on ESDD/ESIA or site specific studies which is likely to interface with terrestrial or aquatic ecology and document nature of interface likely to happen with the conservation/protected areas ecological aspects.
2. Inventory terrestrial and aquatic flora and fauna in and around the dam area and project activity areas. The details of presence of RET species. Habitat type, movement of the mammals and other fauna of the area shall also be documented. It should be supported based on forests or wildlife management pans and other authenticated sources and filed studies
3. Legal status of biodiversity areas and legislative requirements and restriction for undertaking any construction activity in and around the biodiversity areas. Details of permission required with procedure and time required for the same.
4. Detailed protection/conservation measures with resources requires, stages of action (viz planning, construction and operation stages) with responsibilities and resources required. It should have provision of compensatory tree plantation with a minimum ratio of 1:5 means five tree plantations for each tree cut.
5. Detailing of implementation monitoring and reporting. Tree survivability rate shall be fixed minimum as 70%. Provision of monitoring and report against the defined measures and performance indicator shall be made with a frequency of twice in a year.
6. Training aspects for workers for prevention of poaching or defining movement restriction areas etc shall also be well defined in the plan.

E. Responsibility and Approval of BCP

For all such sub projects where bio-Diversity conservation and Management Plan will be prepared or required to be prepared, SPMU will prepare the biodiversity plan and get is approved from CWC. ESMP of such sub projects where these plans will be developed for implementation will be shared with World Bank in case the bid document is prior review. For post review procurements, the Bank can always review during annual post procurement exercise or as appropriate.

Content of BCP

The broad Table of content of Biodiversity plan to be developed by contractor for achieving above stated objectives can be on the following lines

1. Background
2. Sub Project Description:(with specific detailing of duration of construction, labour forced to be employed, need of labour camp and likely location and its distance from conservation/protected areas)

3. Inventory of Terrestrial and Aquatic Flora Fauna (Description of biodiversity of dam area and protected/conservation areas. Details of Rare, endangered and threatened species. Habitat Type etc Population and movement route of schedule I species.)
4. likely Impact of Project Activities on Biodiversity areas. (Details of sub activities which likely to interface with flora/fauna such as generation of high noise, transportation of raw material etc)
5. Regulatory Applicability and requirements (Legal status of biodiversity areas and compliance requirements)
6. Conservation and Management plan: (Measures for biodiversity conservation, and its enhancement for preconstruction, construction and post construction stage.) including general guidelines for workers for prevention of pouching and protection areas as a whole,
7. Monitoring, Compliance reporting and budget

F. Reporting

The Engineer in charge in consultation with contractor will develop PPEQMP (to be part of ESMP)on aspects detailed above and ensure its implementation from the contractor. Contractor will share the PPEQMP monitoring reports with Engineer-In-Charge and latter will share the report with SPMU on regular basis. SPMU in turn will share quarterly reports of progress of work including such plans to CWC, which in turn, will share consolidated compliance report in line with ESMP and ESCP to the World Bank.

Annexure 12: Tribal Development Framework (ESS 7)

Background

Many of the project states have tribal population -- , Chhattisgarh (30.6%), Goa (10.2%), Gujarat (14.8%), Karnataka (7%), Kerala (1.4%), Madhya Pradesh (21.1%), Maharashtra (9.4%), Manipur (40.9%), Meghalaya (86.1%), Odisha (22.8%), Rajasthan (13.8%), Tamil Nadu (1.1%), Telangana (9.3%), Uttarakhand (3.2%), Uttar Pradesh (0.6%), and West Bengal (5.6%). States namely Chhattisgarh, Gujarat, Madhya Pradesh, Maharashtra, Odisha, Rajasthan and Telangana have Fifth Schedule Area, while the state of Meghalaya has Schedule VI areas.

Legal and Institutional Framework

Constitutional Safeguards

The Constitution of India has made the provisions for Scheduled Tribes in the country considering the challenges faced by them and lack of access to development facilities in the geographic regions where they reside. The main safeguards include promotion of educational and economic interests and their protection from injustices and all forms of exploitation. The constitution also safeguards the indigenous communities from the general rights of all Indian citizens to move freely, settle anywhere and acquire property by posing certain restrictions on it, largely to conserve the customs and traditions of these communities. It also permits the States to make reservation in public services in case of inadequate representation and requiring them to consider their claims in appointments to public services.

The constitution provides setting up of separate departments in the States and National Commission at the Centre to promote tribal welfare and safeguard their interests (Art. 224, fifth and Sixth Schedules) and grant in aid are provided to the States to meet the cost of such development schemes to be undertaken for prompting the welfare of Schedule Tribes or raising the level of development in the Schedule Areas (Art. 275 (1). The constitutional safeguards related to tribals are:

i. Article 14, related to equal rights and opportunities;
ii. Article 15, prohibits discrimination on grounds of sex, religion, race, caste etc.;
iii. Article 15 (4), enjoins upon the state to make special provisions for the STs;
iv. Article 16 (3), empowers states to make special provisions for reservation in appointments or posts in favour of STs;
v. Article 46, enjoins upon states to promote with special care educational and economic interests of STs, protection from social injustice and exploitation;
vi. Article 275 (I), grant in aid for promoting the welfare of STs;
vii. Article 330, 332, 335, related to the reservation of seats for STs in Lok Sabha and State Assemblies; and
viii. Article 339, 340, related to Control of the Union over the Welfare of STs and powers to investigations thereof. One of the important Acts which ensures Social Safeguards of the STs is "Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989.

These provisions create safeguards for the protection of tribal communities while creating an environment for affirmative action to support the mainstreaming of tribal communities and for bringing them at par with the other social communities. Through these provisions the constitution also creates a separate institutional set-up and parallel budgetary arrangements (through a tribal sub-plan) for ensuring availability of adequate finances (in proportion to the tribal population) and dedicated cadres for implementing certain programs for tribal development and providing oversight/ monitoring of schemes and programs implemented by other departments.

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006

This Act recognizes and vests forest rights and occupation on forest land in forest dwellings to scheduled tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded. The Act provides for a framework for recording the forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land.

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest s) Act, 2006 also known as the Forest Rights Act recognizes the 'rights' of the forest dwellers (mainly scheduled tribes) to access and use the forest and its resources by providing legal sanctity to that rights and also vests these forest dependent communities with the responsibility to sustainably use, conserve and manage these forest resources and contribute towards strengthening the conservation of these vital natural resources. . The Act recognizes the following rights of the ST and Other Traditional Forest Dwellers (OTFDs):

i. Right to hold and live on the forest land under individual or collective occupation for habitation or for self-cultivation for livelihood by ST or OTFD member or members;
ii. Community rights over forest resources
iii. Right of ownership, access to collect, use, and dispose of minor forest produce which has been traditionally collected within or outside village boundaries;
iv. Other community rights of uses or entitlements such as fish and other products of water bodies, grazing (both settled or transhumant) and traditional seasonal resource access of nomadic or pastoralist communities;
v. Rights, including community tenures of habitat and habitation for primitive tribal groups agricultural communities;
vi. Right of access to biodiversity and community right to intellectual property and traditional knowledge related to biodiversity and cultural diversity;
vii. Any other traditional right customarily enjoyed by the forest dwelling Scheduled Tribes or other traditional forest dwellers

Forest Rights Act, 2006 (FRA) gives the right of ownership, access to collect; use and dispose of minor forest produce which has been traditionally collected within or outside village boundaries. The Act also recognizes the development rights of communities residing within the forests or on forest fringe by providing smooth, encumbrance free access to development facilities in their habitations.

The social impact screening checklist for the project will ensure that the project will not be implemented in areas where community forest rights claims have been filed but not settled.

The Scheduled Castes and Scheduled Tribes: (Prevention of Atrocities) Rules, 1995

This Act provides for specific provisions to prevent atrocities on the Scheduled Castes and the Scheduled Tribes and suggests State Governments to frame rules for the same. These include identification of areas where atrocity may take place or there is an apprehension of re occurrence of an offence under the Act. The State Government is required to set up a ñScheduled Castes and the Scheduled Tribes Protection Cellò at the state headquarters headed by the Director of Police, Inspector General of Police. This Cell is responsible for:

- conducting survey of the identified area;
- maintaining public order and tranquillity in the identified area;
- recommending deployment of special police or establishment of special police post in the identified area; and
- Restoring the feeling of security amongst the members of the Scheduled Castes and the Scheduled Tribes.

The protective provisions safeguard tribal people from social injustices and all forms of exploitation, while the developmental provisions promote special care for the educational and economic interests of the weaker sections like the STs and SCs. Further, administrative provisions under the Fifth and Sixth Schedules give special powers to the state for the protection and governance of tribal areas and the reservation provisions ensure due representation in legislative bodies and government jobs.

Provision of Scheduled Areas under Fifth Schedule of Constitution

In order to protect the interests of the Scheduled tribes, the provision of ñFifth Scheduleò is enshrined in the Constitution under article 244 (2) which identifies certain areas with predominant tribal population that require special protection and measures for conserving their population and culture and provides an administrative arrangement to implement development programs in those areas. The criteria for declaring any area as a "Scheduled Area "under the Fifth Schedule are:

- Preponderance of tribal population,
- Compactness and reasonable size of the area,
- Available administrative entity such as district, block or taluk, and
- Economic backwardness of the area as compared to neighbouring areas.

Scheduled Areas have certain distinct provisions meant to protect and benefit tribal people in a State:

- The Governor of a State which has Scheduled Areas is empowered to make regulations in respect of
  - prohibit or restrict transfer of land from tribals;
  - regulate the business of money lending to the members of STs.
- In making any such regulation, the Governor may repeal or amend any Act of Parliament or of the Legislature of the State, which is applicable to the area in question.
- The Governor may by public notification direct that any Act of Parliament or Legislature of the State shall not apply to a Scheduled Area or any part thereof in the State or shall apply to such area subject to such expectations and modifications as may be specified.
- Tribes Advisory Council [TAC] shall be established in States having Scheduled Areas. The TAC may also be established in any State having Scheduled Tribes but not Scheduled Areas on the direction of the President of India.

Panchayat Extension to Scheduled Areas (PESA) Act

The Act was promulgated to protect the customs, rights and livelihoods of tribal communities through people-centric governance, planning & implementation, and control over resources. With the strength and support of PESA Act, 1996 the PRI bodies at the district and village level have been vested special functional powers and responsibilities to ensure effective participation of tribal people in their own development and to preserve and conserve their traditional rights over natural resources. The Act recognizes the customary institutions and practices of the indigenous communities and vests in the Gram Sabha (village assembly) the power to be consulted and sought consent for any development project proposed for the area, consultation before any land acquisition or resettlement, power to manage village markets, restrict operations of money lenders, own and manage minor forest produce and also prepare plans, at an appropriate level, for their development. A brief summary of powers given to PRIs under PESA Act is given below

Table1: Powers given to Gram Sabha under PESA Act

Gram Sabha	Gram Panchayat	Block Panchayat	Zilla Parishad
▪ Listing of development projects for execution through GP. ▪ Identification and recommendation of beneficiaries under poverty alleviation programs.	▪ Enforcement of prohibition of regulation or restriction of the sale and	▪ The powers of control and supervision of activities of various	▪ Approval to obtain concession for raising minor minerals, lease and licenses for mining

Gram Sabha	Gram Panchayat	Block Panchayat	Zilla Parishad
▪ Any proposal/plan presented by the GP needs prior consultation and approval with the Gram Sabha. ▪ Prior approval for collection of taxes. Wherever necessary asking for information from GP. ▪ Intervene in conflict resolution through traditional and customary traditional methods if required. ▪ Gram Sabha has power to safeguard the cultural identity, community resources and dispute resolution per traditional customs and regulations. ▪ Control and supervision of functions and powers of GP.	consumption of any intoxicant. ▪ The ownership of Minor Forest Produce. Prevention of alienation of land and restoration of any unlawful land of a Scheduled Tribe. ▪ Control over the money lending to the Scheduled Tribe.	organizations and individuals and their office bearers engaged in social work ▪ Consulting the Gram Sabha wherever necessary.	activities or auctioning of minor mineral products. ▪ Prior approval of Zilla Parishad, for land acquisition or rehabilitation of affected people with or without consultation with the Gram Sabha. ▪ Planning and management of minor water bodies.

Applicability of ESS7

In ESS 7, the term ñIndigenous Peoples/Sub- Saharan African Historically Underserved Traditional Local Communitiesò (or Scheduled Tribes) refer exclusively to a distinct social and cultural group possessing the following characteristics in varying degrees:

e) Self-identification as members of a distinct indigenous social and cultural group and recognition
f) of this identity by others; and
g) Collective attachment to geographically distinct habitats, ancestral territories, or areas of seasonal use or occupation, as well as to the natural resources in these areas; and
h) Customary cultural, economic, social, or political institutions that are distinct or separate from those of the mainstream society or culture; and
i) A distinct language or dialect, often different from the official language or languages of the country or region in which they reside.

The project is likely to be take up in many states of which many have significant amount of tribal population such as Odisha, Chhattisgarh, Madhya Pradesh, Meghalaya, West Bengal, etc. Many of these same states also have areas that are declared as Schedule V and VI areas as defined by the Constitution. E.g. some of the dams that are taken up for funding at appraisal i.e. Mahi Bajaj Sagar and SomKamla Amba dams in the state of Rajasthan are in Schedule V areas i.e. areas that have a preponderance of tribal population as declared by the constitution. In Indian context all such Schedule Area locations automatically make this standard relevant and require preparation of a TDP. In addition, tribal groups in other locations within the project area, need to be assessed whether such group (s) meet the afore-mentioned characteristics and if they meet, then too, project needs to fulfil the requirement of this ESS 7 i.e. needs to develop a TDP.

Potential Impacts on Tribal Communities

Positive Impacts: Even though some of the dams are located in Schedule V areas and also many others are likely to be having communities in the vicinity that may be characterized as Indigenous persons[1] The proposed structural rehabilitation works are being carried out on the existing dam structure and within dam premises and not leading to any new infrastructure. The non-structural interventions such as early flood warning system and EAP, would be taken up in midst of tribal population groups. The tribal households will be indirectly and positively benefited by the dam safety interventions proposed for each sub-project Dam as these will help improve the overall safety of the dams. In addition, under Component 3 ï Additional Revenue Generation, Tribal households may also

[1] As per the characteristics outlined in ESS 7

benefit from the work/income generation opportunities relating to tourism works, water recreation activities, motor boats, fishing, solar power/floating solar etc.

Potential adverse impacts: Structural interventions under Component 1of the project largely are rehabilitation works that are being carried out on the dam structure or within the dam premises and on land available with the dam authorities. In case of the 10 dams that are ready at appraisal, none of the proposed activities/interventions, involve acquisition of private land and/or private assets. These activities in no way cause restriction on access to land or use of resources by local communities and there is no economic displacement envisaged due to the sub-project. However, there are many dams that would be taken up under the projectï locations of which and activities proposed therein, are not known at present and will be known only during project implementation. Besides, these dams too would have tourism, water recreation activities proposed and might result in adverse impacts on tribal households and in a few cases, possibly involve adverse impacts on land and natural resources, cause relocation, and/or have significant impacts on their cultural heritage, resulting in the obtain Free Prior and Informed Consent (FPIC). Non-structural interventions such as preparation and implementation of EAP and early flood warning systems will involve consultation with variety of stakeholders including tribal groups, living in the vicinity of the dam and would need to be consulted and informed in culturally appropriate approach ï language, techniques that are familiar to them.

Tribal Development Framework: Purpose, Objectives and Principles

Given that all projectôs structural interventions are mostly rehabilitation in nature and these will be carried out either on dam structure or within dam premises, interventions leading to afore-mentioned impacts are likely to be few if any. However, in case of interventions of spillways, construction or rehabilitation of roads, and activities under Component 3 including tourism, water recreation development etc is carried out, which would be taken up on pilot basis and based on the requirement of Implementing Agencies, then possible impacts would be determined through, and mentioned in the ESDDs and subsequently in the ESMP of such sub projects. Therefore, three types of activities are likely to require participation and involvement of tribal groups, as given below:

i. Major structural intervention e.g. Spillway impacting land and assets in the vicinity: likely in very few dams, if at all
ii. Preparation and implementation of EAP in all dams and
iii. Tourism, water recreation activities, if any

Hence a Tribal Development Framework has been developed that will guide the preparation of TDPs where necessary.

Given the potential for positive and negative impacts on tribal groups, the World Bankôs Environment and Social Standard ESS7 on Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities is applicable. The main objective of the ESS 7 is to:

- ensure that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Tribal groups.
- avoid adverse impacts of projects on tribals or when avoidance is not possible, to minimize, mitigate and/or compensate for such impacts.
- promote sustainable development benefits and opportunities for tribals in a manner that is accessible, culturally appropriate and inclusive
- improve project design and promote local support by establishing and maintaining an ongoing relationship based on meaningful consultation with the affected by a project throughout the projectôs life cycle.
- obtain the Free, Prior, and Informed Consent (FPIC) of affected tribals households in the three circumstances described in this ESS.

- recognize, respect and preserve the culture, knowledge, and practices of tribal groups and to provide them with an opportunity to adapt to changing conditions in a manner and in a timeframe acceptable to them.

Hence, the TDF ï based on ESS7 and all applicable national and state levels relating to tribals has been prepared to guide the preparation of Tribal Development Plans wherein either dams are located in Schedule V or VI areas or wherein tribal groups which meet the characteristics outlined in ESS 7 may be present in the project area. Specifically, the TDF shall:

i. provide guidance and establish requirements for screening, consultations, preparation of TDPs.
ii. provides guidance on avoiding or minimizing and/or mitigating any potential adverse impacts on tribal households and their livelihoods.
iii. ensure that project benefits are accessible to the tribal communities living in the project area;
iv. establish appropriate strategies for information sharing, communication and capacity building of tribal stakeholders at all stages of the project and proposes additional interventions/ investments that may be required to enhance project benefits and their outreach/ access to the tribal communities.
v. ensure that the project obtains Free, Prior and Informed Consent (FPIC) with tribal people in the entire process of planning, implementation and monitoring of project;
vi. ensure that a grievance mechanism is established as described in Stakeholder Engagement Framework for this project and that it is culturally appropriate and accessible to affected tribal groups and takes into account the availability of judicial recourse and customary dispute settlement mechanisms such tribal groups.

Framework for Meaningful Consultations, and Free, Prior and Informed Consent (FPIC), when necessary

ESS7 requires the IAs to obtain Free, Prior and Informed Consent (FPIC) for any project interventions that are likely to cause:

a) adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation;
b) cause physical relocation of tribal communities from their land and natural resources subject to traditional ownership or under customary use or occupation; or
c) significant impacts on the cultural, spiritual, natural and or religious heritage of the tribal communities;

For this purpose, the SPMU/IA will undertake a participatory process led by the E&S Cellof the IA and will involve: Gram Panchayats; community groups (fishing community, Village Pradhans (Headman), and which will ensure the active inclusion of tribal communities, including their farmers and leaders and other disadvantaged groups. Tribal communities will be involved in the planning, implementation and monitoring process. Identification of these stakeholders will be undertaken in accordance with the Stakeholder Engagement Framework based on the type and nature of project intervention i.e. structural measure, tourism related or EAP related, etc.

A Stakeholder Engagement Framework (SEF) has been prepared with the objectives of i) systematic approach to stakeholder engagement and information disclosure; ii) maintenance of positive relationships with them; iii) monitoring of stakeholder interests and feedback. Dam site authorities will be supported by E&S specialists at the SPMU level to effectively engage with primary stakeholders throughout project implementation. The Stakeholder Engagement Plan (SEP) ï to be prepared for each dam based on the SEF, will ensure that the tribal groups are able to engage with the project in socially and culturally meaningful way/language on queries, information disclosure, and grievances. Other project-related information will be shared with the primary stakeholders in locally understood languages where necessary. All ESS plans and documents will be disclosed at appropriate platform. ESMF and all project interventions specific safeguard documents will be disclosed in country as well as on Bankôs website in English and local language.

Table 2– Application of Tribal Development Framework to sub-projects

Stage	Actions for Social Assessment, Meaningful Consultations and Tribal Plan preparation and implementation in Tribal Area
Due Diligence stage (ESDD)	▪ Screen for presence of tribal communities in project village (using screening checklist)/ascertain if the dam is located within designated tribal area (Schedule V or VI area) ♦ Name(s) of IP community group(s) in the area; ♦ Total number of IP community groups in the area; ♦ Percentage of IP community population in the area compared with the total population; and ♦ Number and percentage of IP households to be affected by the sub-project ▪ List nature of potential activities relating to structural, non-structural and tourism/water recreation related interventions likely to be undertaken in presence and/or tribal groups ▪ List the nature of tribal groups present or likely to be affected by the interventions ▪ Conclude on the need for: ♦ a Tribal Development Plan and its likely content depending on whether it is only for: • non-structural measures such as EAP, EWS • involves structural measures, • involves tourism ♦ for obtaining FPIC (indicate type of impact i.e. on land, requiring relocation, cultural heritage) The scope and scale of consultation, as well as subsequent planning/documentation and TDP preparation processes, will be proportionate to the scope and scale of potential project risks and impacts as they may affect such tribal groups
Preparation stage	▪ Identify stakeholder ï tribal groups, areas and households ▪ Engage Social experts to support the PMU with relevant knowledge of the area Capacity building of SDS and other dam personnel on TDF; ▪ Develop culturally appropriate IEC materials for dissemination in the project areas with ST population ▪ Orient tribal communities on project objectives, interventions and implementation processes through use of culturally appropriate IEC materials; ▪ Disclose of interventions and approach under TDF ▪ Mobilise tribal households for proposed interventions ▪ Prepare of socio-economic baseline of the tribal groups including profiling of tribal communities in GPs; ▪ Hold regular, periodic consultations with affected and benefitted tribal communities during planning by involving: ♦ representative bodies and organizations (e.g., councils of elders or village councils, or Heads/Sarpanch) other community members; ♦ Provide sufficient time for decision-making processes; and ♦ allow for effective participation in the design of project activities or mitigation measures that could potentially affect them either positively or negatively. ▪ Identify existing Grievance resolution mechanisms and processes respected and used by the locals ▪ Identify schemes that promote social and economic empowerment of tribal communities with which project activities can be converged ▪ Hold consultations with other departments and facilitate convergence through support from the project.

Stage	Actions for Social Assessment, Meaningful Consultations and Tribal Plan preparation and implementation in Tribal Area
Preparation of TDP (within ESMP or a stand-alone document)	Depending on the presence of tribal people and their socioeconomic vulnerability and cultural distinctiveness the, prepare dam specific TDPs as per outline presented below ▪ A summary of Targeted Social Assessment, including the applicable legal and institutional framework; ▪ baseline seriocomic data that profiles occupations, land-holdings, household incomes, existing customary usufruct rights over forest resources, participation in project operations as well as community institutions to assess impact ▪ A summary of the results of the meaningful consultation; and FPIC where necessary ▪ formal, written community endorsement/signoff of the subproject /activity (locations, design etc.) by elected representatives and customary tribal leaders; PESA resolution, etc. where necessary (As is required under the legislations governing Schedule areas) ▪ Specific Measures to avoid, minimize, mitigate, or compensate for any potential adverse impacts identified. ▪ Specific Measures for ensuring culturally appropriate social and economic benefits for tribal communities; e.g. preference in provision of benefits from tourism development, water recreation activities, ▪ Details of cost estimates, financing plan, schedule, and implementation arrangements; ▪ Accessible and culturally appropriate grievance redressal procedures ▪ Project Monitoring and Evaluation arrangements including monitoring indicators and evaluation parameters ▪ Disclosure arrangements
Implementation	▪ Continue holding consultations as per TDP and SEP using IEC materials developed ▪ Administer and monitor mitigation measures stated in the TDP. Key monitoring indicators would be ♦ Coverage of tribal households in different activities implemented under the project ♦ Benefits rendered to and accessed by the tribal households ♦ Number of tribal families selected under capacity building activities ♦ Number of tribal family members having engaged in civil work, tourism, EAP ▪ Liaise with other relevant departments involved in convergence ▪ Progress Reporting including reporting on functioning of grievance redressal

Implementation Arrangements of TDP

The TDP implementation responsibility will be in sync with the overall implementation strategy of the project, with the Social Specialist at the IA being responsible for its implementation under the overall guidance provided by the Head of the IA, Project Director. The Social Specialists will also be responsible for coordinating with other line departments, provide requisite support for organizing community consultations, data collection and provide oversight on the process of preparation and quality of the TDF. The role and responsibilities of the Social Specialists are as follows:

1. Support the implementing entities in preparation and finalization of tribal plans for their greater inclusion.
2. Over all planning, designing, guiding, implementing and coordinating institutional development and capacity building strategies proposed for tribals and institutions existing in scheduled areas.
3. Identifying stakeholders and ensuring their participation;
4. Monitoring implementation of the framework by different implementing entities as per TDF;
5. Designing the community manual and guidelines for the support organization and developing training modules / manuals / IEC materials;
6. Monitoring the activities of the unit;
7. Ensuring timely implementation of capacity building measures, taking in to account specific needs of the tribals.

The Social Specialists will be the responsible person to guide the overall process related to tribal inclusion and their greater participation in the development process. She/he will monitor the processes followed in execution of the planned activities and realization of the tribal inclusion parameters. In additional, an external consultant will be hired for preparation of the tribal development plans.

Implementation Costs and budget: Implementation of the TDP would need to factor in the following:

Item	Unit	Rate	No.	Amount
Additional resource persons (Tribal experts, etc.)				
Conducting FPICs (vehicle, fuel, photography, videography)				
Training				
Budget for any identified special community needs				

Annexure 13: Guidance Framework for Cultural Heritage Protection Plan (ESS 8)

A. Background

India is rich in its cultural heritage. People are very attached to its traditions, custom, and physical community resources. India has notified many archeologically important buildings as well. Dam improvement may have interface with cultural heritage of the area and needs to plan for heritage protection during project implementation.

ESS8 recognises that cultural heritage provides continuity in tangible and intangible forms between the past, present, and future. This ESS defines the following objectives for the same:

1. To protect cultural heritage from the adverse impacts of project activities and support its preservation
2. To address cultural heritage as an integral aspects of sustainable development
3. To promote meaningful consultation with stakeholders regarding cultural heritage
4. To promote equitable sharing of benefits from the use of cultural heritage

Though Dam rehabilitation work is unlikely to have interface with cultural heritage of the area, however considering its importance this framework is defined:

B. Scope of Cultural Heritage Protection Plan (CHPP):

CHPP shall meet the following aspects:

1. Identify the presence of Archaeological protected monuments, present in dam or close vicinity of the dam
2. Identify applicable legislative restriction and comply with them.
3. Identify physical, cultural or any religious heritage of importance to communities in the area close to or in the vicinity of dam and is/ are likely to have impact
4. Define procedure for minimising the impact if any on cultural heritage of the areas.
5. To define procedure for dealing with chance find

C. CHPP Preparation and Approval

CHPP shall be prepared prior to start of construction, conforming to all requirements listed at section óDô below. It shall be prepared by Contractor in consultation with SPMU, finalised and approved by SPMU. The finalised version of CHPP shall also be shared with CWC and Bank.

D. Content of Site Specific CHPP

i. Identification of cultural resources and likely impact from the project

Identify all agro-ecologically protect monument and physical cultural resources of the community. List the risk and impact on these resources. Plan for prior legislative permit if applicable. Also identify the likely impacts on these heritages due to the project activities

ii. Undertake community consultation and other stake holders so that Community consultation and protection measure planning

Undertake consultation with community for evolving sustainable protection measures.

iii. Identification and Protection of Chance Find:

Any chance find of historical or archaeological importance shall be informed to authority concern it shall be preserved under secure conditions.

iv. Reporting

Contractor will share the CHPP monitoring reports with SPMU on regular basis. SPMU in turn will share quarterly reports of progress of work including such plans to CWC, which in turn, will share consolidated compliance report in line with ESMP and ESCP to the World Bank.

v. Responsibility

Prime responsibility of developing and implementation of OHSMP shall be of the contractor. However, SPMU will ensure its preparation and implementation in consultation with the Contractor. The contractor shall also ensure deployment of trained OHS officer to work site. All applicable legislation shall also be identified and compiled by contractor.

Annexure 14: Indicative Table of Contents for Various Assessments and Plan Reports

14.1: Guiding Framework for Construction Debris and Solid Waste Management Plan

A. Background

Dam rehabilitation activities may generate various type of waste depending on nature of rehabilitation work involved such as debris and construction waste, empty paints containers, waste lubricants, electrical waste, and municipal waste from labour camps. Some of these wastes are bio-degradable, some are reusable/saleable and some are non-biodegradable and non-reusable. Many of these wastes attract provision of law for its disposal and require controlled handling and disposal. Construction Debris and Solid Waste Management Plan (CSWMP) is aimed to fulfil the requirement of safe handling and controlled disposal of these wastes.

B. Scope

CSWMP shall meet the following aspects

1. Identification of all the waste generation with likely quantity and source
2. Defining applicable provisions applicable laws. Some of the applicable legislations are: Construction and Demolition Waste Management Rules 2016 Solid Waste Management Rules 2016 amended 2019 and Hazardous Waste (Management and Transboundary movement) Rules 2000
3. Define transportation, storage and disposal measures for all category of waste with provision of reuse where feasible.

C. CSWMP Preparation and Approval

CSWMP shall be prepared prior to start of construction, conforming to all requirements listed at section óDô below. It shall be prepared by contractor and finalised and approved by SPMU .The applicability only prior review cases will be shared with CPMU and World Bank as appropriate. However, the CPMU and World Bank may review the implementation of CSWMP at appropriate stage during the course of Project Implementation.

D. Content of CSWMP

i. Identification of waste with Quantity and source

CSWMP will document all potential waste generation with likely quantity and characteristics. It will also define location for storage of construction waste and its disposal methodologies. It will also define caution for its transportation and safe disposal. Example: (a) The construction and demolition waste can be reused for constructional related filling purposes. (b) Similarly, biodegradable municipal solid waste can be converted into compost using small portable composters (c) Saleable waste (paper, packaging material) can be sold off, (d) The waste oil can be given to oil recyclers .

ii. Handling guidelines for various wastes

The handling methodologies for some of the waste shall be documented under CSWMP. Methodology may consider the following waste specific guidelines as well:

Excavated Soil: Topsoil needs to be preserved wherever soil is to be excavated. Top soil shall be considered up to the depth of 15 cm which shall be stripped and stored separately under covered sheds. This soil shall be used for plantation or land scaping purposes. Lower layers of excavated soil shall be re-used within the site for filling purpose, or other construction activities. If any extra soil is left , then that should be disposed of to the approved debris disposal site.

Construction: Construction waste will comprise of broken bricks, dry cement, discarded timber, metal piece, cement bag, dry asphalt/bitumen, glass, paint/varnishes box, electrical waste, instrumentation waste, waste oil etc. These wastes should be segregated into recyclable and non-recyclable waste. Recyclable waste shall be stored in the covered area and shall be sold to authorized vendors regularly. Non-recyclable waste shall be disposed at approved debris site in covered vehicles or reuse for land filling purposes. These wastes must comply with the construction and demolition waste management Rules 2016 requirement for its disposal. Waste oil shall be sent for reuse through waste oil recyclers.

Solid Waste (Municipal and other Waste): Municipal waste will be generated from labour camp. Dustbins for recyclable and non-recyclable waste shall be provided in labour camp area. Recyclable waste shall be sold to authorized vendors. Biodegradable waste shall preferably be composted in portable mechanical waste composters. Concept of reduce, re-use and recycle shall be followed at site. The non-recyclable, nonsalable and nonbiodegradable wastes shall preferably be disposed at a marked site at project area itself where this waste should be buried underground. Provision of liner shall also be made at this burial site.

Guidelines for selection of Disposal Site: The disposal site shall be selected such that it conforms to the following criteria:

- Disposal sites are located at least 500 m away from sensitive locations like settlements, water body, notified forest areas, conservation areas.
- Disposal sites shall not contaminate any water sources so the site should be located away from water body and disposal site should be lined properly to prevent infiltration of water.
- Public perception about the location of debris disposal site has to be obtained before finalizing the location.
- The appropriate administrative authorities shall approve the plan for the disposal site.

Suggested Precaution for safe disposal of waste: The following caution can be followed for safe disposal of waste at disposal site

- During the site clearance and disposal of debris, the Contractor will take full care to ensure that public or private properties are not affected, there is no dwellings around the dumpsite and that the traffic is not interrupted.
- The Contractor will dispose debris only to the identified places .
- In the event of any spoil or debris from the sites being deposited on any adjacent land, the Contractor will immediately remove all such spoil debris and restore the affected area to its original state.

- Contractor will adopt dust suppression methods while transporting the waste.
- Materials having the potential to produce dust will not the loaded to a level higher than the side and tail boards and will be covered with a tarpaulin in good condition.
- Any diversion required for traffic during disposal of debris shall be provided with barriers after the discussion with local people.
- During the debris disposal, Contractor will take care of surrounding features and avoid any damage to it. The debris should not be disposed along the bridges & culverts and near the water bodies.
- While disposing debris / waste material, the Contractor will take into account the wind direction and location of settlements to ensure against any dust problems.
- Contractor should display the board at disposal site stating the name of project, usage of the site and type of debris being disposed.
- Material should be disposed through covered vehicles only
- No contaminated/hazardous/e-waste shall be disposed at the debris disposal site
- The dump sites once filled shall have to be suitably rehabilitated by planting local species of shrubs and other plants. Local species of trees has also to be planted so that the landscape is coherent and is in harmony with its various components.

iii. Record Keeping & Reporting

CSWMP shall have provision of monitoring and keeping record of disposal site in terms of its area, capacity and type & quantity of material disposed daily.

Contractor will share the CSWMP monitoring reports with SPMU, CWC and Bank on quarterly basis. Any deviation or receipt of complain from community regarding waste disposal, shall also be documented and reported in quarterly report. Corrective and preventive action compliance shall also be reported in next quarterly monitoring report.

iv. Penalties

CSWMP shall have provision of stringent action & penalties which shall be imposed on contractor/sub-contractor for dumping of materials in locations other than the pre-identified locations by the Engineer-in-charge.. Grievance Redressal Mechanism should be in place for taking note on such complaints.

i. Responsibility

Prime responsibility of developing and implementation of CSWMP shall be of the Contractor. However, SPMU will ensure that plan is implemented in letter and spirit. All applicable legislation shall also be identified and compiled by contractor.

14.2: Indicative Outline of ESIA

a) Executive Summary
   Introduction
   Project Description
   Baseline Environment
   Anticipated Environmental Impacts and Mitigation Measures
   Alternatives
   Public Consultation and Information disclosure
   - Consultation to Date
   - Disclosure of documents

   Environmental Management Plan
   Conclusion and Recommendations

b) Introduction
   Background/Overview
   Purpose of the document/ESIA

c) Legal and Institutional Framework
   Government Policy
   World Bank ESF
   International Treaties
   Policies Applicable to the Project

d) Project Description
   Location
   Key Project Components
   Description of Sub project
   Project Design
   Volume of Civil Works
   Quarries and Borrow Sites
   Construction Camps
   Construction Process
   Project Costs
   Implementation Schedule

e) Baseline Data
   Physical Resources
   - Climate
   - Topography and Landscape
   - Geomorphology
   - Geodynamics process along the project
   - Geological hazards of the project area
   - Hydrology
   - Hydrogeology

   Ecological Resources
   - Flora
   - Fauna
   - Protected Areas
   - Bird migration

   Environment Quality
   Social Economic and Cultural Resources

f) Environmental and Social Risks and Impacts
   Approach to Screening of Environmental Impacts
   - Preconstruction

- Construction
- Operation

Spill Contingency Plan
Safety Measures
Preliminary assessment of climate change impact
Induced cumulative impacts

g) Mitigation Measures: Impact Specific ECoPs
h) Analysis of alternatives
Overview
Without Project Alternatives
Alternative Analysis in Feasibility Study
Alternative Analysis during Detailed Design
- Improvement of Project Route of Feasibility Study Stage
- Study of Alternative Alignment

Selection of Design and Construction Standard

i) Grievance Redress Mechanism
j) Information on Disclosure
k) Environmental and Social Management Plan
   a. Objective of ESMP
   b. Methodology for ESMP preparation
   c. Environmental and social risk and impacts
   d. Mitigation Measures
   e. Monitoring timing and performance indicator
   f. Capacity Building and Training
   g. Implementation Schedules and cost estimates
   h. Integration of ESMP with Project
   i. Emergency Response Plans
   j. Pollution Prevention and resource Conservation Plan
   k. Biodiversity conservation and sustainable management plan
   l. Community health and safety management plan
   m. Reporting responsibility
   n. Cost and Estimate
   o. Special Clause for the BoQ/Bid Document
l) Measures and Actions for the Environmental and Social Commitment Plan (ESCP)
m) Key Appendices

14.3: Outline of a Biodiversity Conservation plan

The biodiversity conservation plan should meet following stated objectives:

- Document of Status of biodiversity in and around the dam supported by facts, figures and pictures, maps
- Availability of analysis of legal status of protected /conservation areas and compliance requirements
- Availability of information on likely interface of sub project activities and need of protection of flora and fauna
- Detailing of measures for protection and conservation of bio- diversity of the area

The broad Table of content of Biodiversity plan to be developed by contractor for achieving above stated objectives can be on the following lines

1. Introduction
2. Sub Project Description with specific detailing of duration of construction, labour forced to be employed, need of labour camp and likely location and its distance from conservation/protected areas
3. Description of biodiversity of dam area and protected/conservation areas. Details of Rare, endangered and threatened species. Population and movement route of schedule I species.
4. Details of sub activities which likely to interface with flora/fauna such as generation of high noise, transportation of raw material
5. Legal status of biodiversity areas and compliance requirements
6. Measures for bio security, and its enhancement for preconstruction, construction and post construction stage.
7. General guidelines for workers for prevention of pouching and protection areas as a whole,
8. Compliance reporting

14.4: Outline of Tribal Development Plan (TDP)/ Indigenous Peoples Development Plan (IPDP)

TDP shall be prepared as guided by TDF.

1. Summary of the Targeted Social Assessment, including the applicable legal and institutional framework and baseline data;
2. A summary of the results of the meaningful consultation tailored to Indigenous Peoples/Tribals and if the project involves the three circumstances[1], then the outcome of the process of FPIC carried out with the affected Indigenous Peoples/Tribals during project preparation;
3. A framework for meaningful consultation tailored to Indigenous Peoples/Tribals during project implementation;
4. Measures for ensuring Indigenous Peoples/Tribals receive social and economic benefits that are culturally appropriate and gender sensitive and steps for implementing them;
5. Measures to avoid, minimize, mitigate, or compensate Indigenous Peoples/Tribals for any potential adverse impacts that were identified in the social assessment, and steps for implementing them;
6. The cost estimates, financing plan, schedule, and roles and responsibilities or implementing the Indigenous Peoples/Tribals Plan;
7. Accessible procedures appropriate to the project to address grievances by the affected Indigenous Peoples/Tribals arising from project implementation; and
8. Mechanisms and benchmarks appropriate to the project for monitoring, evaluating, and reporting on the implementation of the Indigenous Peoples/Tribals Plan, including ways to consider input from project-affected I Indigenous Peoples/Tribals in such mechanisms

14.5: Outline of Stakeholder Engagement Plan

SEP shall be guided by Project SEF

1. Project Description
2. Nature of the proposed project interventions
    a. Structural interventions
    b. Non-structural interventions

[1]Refer to ESS 7 for details

   c. Revenue generation (Tourism, Water recreation, floating solar)
3. Purpose of the Stakeholder Engagement Plan
4. Applicable legal and regulatory framework and World Bank ESF
5. Brief Summary of previous stakeholder Engagement activities
6. Stakeholder identification in X dam
7. Stakeholder Engagement and Project cycle
8. Timelines for Information disclosure and Feedback
9. Future phases of project
10. Implementation arrangements
11. Grievance redressal mechanism
12. Budget for implementation
13. Monitoring and Reporting (including Annual reporting back)
14. Training

14.6: Outline of Labor Management Procedure

1. Background
2. Summary of proposed interventions
3. Overview of Labor use in the project
4. Assessment of key potential labor risks
5. Brief overview of labor legislation ï Terms and conditions
6. Brief overview of labor legislation ï Occupational Health and Safety
7. Responsible Staff
8. Policies and Procedures
9. Occupational health and Safety
10. Age of Employment
11. Terms and Conditions
12. Grievance Mechanisms
13. Contractor Management
14. Community Workers
15. Primary Supply Workers

Annexure 15: Suggestive ToR for the position of Social Development Specialist in CPMU/SPMU

A. Project Description:

DRIP-2 will focus on: (a) upgrading and modernizing dam operation and maintenance, with accompanying institutional reforms and strengthening of regulatory measures for safe and financially sustainable dam operations; and (b) physical and technical dam rehabilitation and improvement. The project will have four components: (i) strengthening the capacities and institutional framework for dam safety; (ii) risk-informed asset management and sustainable financing; (iii) reducing the likelihood and consequences of dam failures by improving dam safety through structural and non-structural measures including rehabilitation of dam structures and appurtenances; (iv) project monitoring and management. The proposed interventions will initially be implemented in the States of Manipur, Rajasthan, Chhattisgarh, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, and Tamil Nadu, and at the national level through the Central Water Commission and BBMB. Other States/agencies may be added during project implementation. The expected number of dams by implementing agency is summarized below.1 It is possible that during project implementation a few dams will be substituted by dams that are found to be of higher priority for rehabilitation and improvement.

B. Scope of work

The project envisages varied social issues and impacts across the many dams that are proposed to be taken up. As such projectôs infrastructure interventions would trigger Bank Environment and Social Framework (policy and standards), therefore these need to be factored into the preparation of necessary mitigation instruments (action plans and frameworks), besides ensuring compliance to existing and relevant national and state legislations. In this regard, PMU needs to hire an experienced Social Development Specialist in its unit to effectively coordinate necessary studies as part of project preparation and implementation. Specific tasks by preparation and implementation/monitoring stages are as follows:

Preparation stage

1. Overall responsibility for overseeing the preparation of key plan documents including: Land Acquisition Plan, Social Impact Assessment (SIA), Resettlement Policy Framework, Resettlement Action Plan(s), Tribal Development Plan (if required), Stakeholder Engagement Plan, Labor Management Procedure and Gender Based Violence Risk Mitigation Plan and Labor Influx Management Plan by coordinating with ESIA consultant agency, DPR consultant, Revenue Department. In this respect, s/he will liaise with and facilitate interaction with necessary institutional stakeholders, communities, organizing of community level consultations, facilitating data collection for socio-economic surveys and impact assessments,
2. Manage Consultants responsible for the preparation of the afore-mentioned plan documents.
3. Review draft outputs of the contracted agencies for conducting ESIA, provide timely feedback, observations and comments
4. Facilitate preparation computerized data base related to the Land acquisition, resettlement impacts.
5. Ensure integration of ESIA/ESMP findings related to social aspects in investment plans, engineering designs and bidding documents
6. Co-ordinate with State Revenue Departments and concerned SEs/EEs for land acquisition
7. Ensure time bound preparation of Action Plans for the Land Acquisition Units.

[1]Note that some of the dams (e.g., in Kerala) are in fact dam complexes with more than one dam structure. For the purposes of DRIP-2, these are considered as one dam.

8. Liaise with counterpart (Social Development Specialist) at the World Bank to obtain comments and feedback on these draft outputs towards finalization and approval of the reports (Social Impact Assessment (SIA), Resettlement Policy Framework, Resettlement Action Plan(s), Tribal Development Plan (if required), Stakeholder Engagement Plan, Labor Management Procedure and Gender Based Violence Risk Mitigation Plan and Labor Influx Management Plan)
9. Assist and guide IAs for information dissemination, stakeholder consultations, and proper disclosure of documents and ensure disclosure of these outputs including translation of the executive summaries into local language of the prepared mitigation instruments.
10. Facilitate establishment of Grievance redressal committees
11. Undertaken any other activities as may be assigned for the efficient and smooth execution of the project in accordance with the Environment and Social Commitment Plan of the project.

Implementation/Monitoring stage

1. Support the IA in implementation of the above mitigation plans (Social Impact Assessment (SIA), Resettlement Policy Framework, Resettlement Action Plan(s), Tribal Development Plan (if required), Stakeholder Engagement Plan, Labor Management Procedure and Gender Based Violence Risk Mitigation Plan and Labor Influx Management Plan.
2. Maintain and continuously update the computerized data base related to the delivery of Resettlement Entitlements and generation of periodical progress reports.
3. During implementation, s/he will also be responsible for internal monitoring of the implementation of mitigation plans, besides facilitating and contributing to the periodic external impact evaluation studies that would be undertaken at specified intervals during implementation stage of the project
4. Contribute to the continued implementation of the citizen engagement and feedback system during implementation stage.
5. Support IAs in responding to queries from stakeholders.
6. Undertake other tasks as required for satisfactory completion of the above-mentioned tasks
7. Work with contractors (and other consultants), and others as applicable to organize and facilitate consultations and workshops with stakeholders.
8. Coordinate the meetings of various committees established for the implementation of Resettlement Action plans.
9. Ensure compliance to all labor laws such as prohibition of child labour, HIV/AIDS and gender issues by conducting necessary training/orientation programs
10. Prepare Annual Action plan for implementation of these plans including stakeholder engagement
11. Undertake periodic field visits as appropriate to review the progress at ground level.
12. Track, document, and ensure follow up to stakeholders on all grievances and provide reporting data for progress reports.
13. Undertake capacity building activities for PIU personnel on provisions and actions listed in the safeguard documents and process to be adopted
14. Prepare monthly or quarterly status reports for CWC and the World Bank on social management aspects (grievance management, implementation progress on management plans, etc.) based on site visits, inputs from contractors and construction supervision consultants.
15. Any other duties as may be assigned for the efficient and smooth execution of the project by IA

C. Qualifications

Masters/ Post Graduate degree in Social Sciences relevant discipline e.g. Social work / Sociology / Anthropology.

D. Experience

Candidate must have /possess

1. Minimum seven to ten yearsô experience in the area of social impact assessment, including facilitating land acquisition processes, undertaking stakeholder consultation, conducting/facilitating socio-economic surveys, undertaking social impact assessments and preparation of Resettlement Action Plans, Indigenous Peoples Development Plans in accordance with World Bankôs ESF. S/he should have worked on at least three (3) infrastructure projects preferably of similar nature, of which at least one should have been funded by multilateral agencies.
2. Knowledge of legal/regulatory requirements of GoI on land acquisition, resettlement and rehabilitation and existing government welfare /rehabilitation schemes.
3. Experience of working as Social Development Expert/Officer for major Infrastructure projects.
4. Familiarity with the working with Donor (World Bank, ADB, etc.) funded projects and other donor development agencies;
5. Proficiency in use of Computers to manage data base and generation of reports, with overall good communication skills (in English, Hindi)
6. Prior experience of implementation and monitoring of such safeguard activities would be considered as an added advantage.
7. The applicant must be physically fit for extensive touring with age of less than 55 years.

E. Duration of Assignment

The duration shall be for minimum period of 1 year, to be reviewed and renewed based on performance and work requirement. The consultant shall be based full time at the X project office in X and must be willing to travel extensively to different project sites.

F. Travel Requirements

The Social Specialist will be required to undertake field-visits and tours as per the project requirements.

G. Reporting and Performance Review

The Social Specialist will report to the Project Director of CWC. The work and performance of the Environmental Specialist shall be reviewed by the project director on a periodic basis.

H. Facilities to be Provided by the Client

i. The client will provide office accommodation in the PIU office at X
ii. The Client will provide pooled vehicle for field visits outside X only.
iii. The Social Expert shall be paid TA & DA for field visits as per the applicable relevant X Govt. Rules.

Annexure 16: Suggestive ToR for the position of Environmental Specialist in CPMU/ SPMU

A. Project Description

DRIP-2 will focus to improve safety and operational performance of selected dams owned and operated by partner IAs along with institutional strengthening. The project will have four components: (i) Rehabilitation and Improvement of Dams and Associated Appurtenances; (ii) Dam Safety Institutional Strengthening; (iii) Incidental Revenue Generation for sustainable O&M of dams; (iv) project management. The proposed interventions will initially be implemented in the Rajasthan, Chhattisgarh, Gujarat, Karnataka, Kerala, Madhya Pradesh, Manipur, Maharashtra, Meghalaya, Odisha, Punjab, Tamil Nadu, and Uttar Pradesh at the national level through the Central Water Commission and BBMB. Other States/agencies may be added during project implementation. The expected number of dams by implementing agency is summarized below.1 It is possible that during project implementation a few dams will be substituted by dams that are found to be of higher priority for rehabilitation and improvement.

B. Scope of Work

The project envisages upgradation and maintenance of dams and some of which may lead to adverse environmental impacts and risks on environmental sensitive receptors, communities close to dams, slope stability, habitat, forest etc. during pre-construction and construction stages, requiring impact assessment studies and also multi-stakeholder consultations. As such project is prepared as per the World Bankôs new ESF Policy and infrastructure interventions would trigger Environmental and Social Standards in the policy, therefore these need to be factored into the preparation of necessary mitigation instruments (action plans and frameworks), besides ensuring compliance to existing and relevant national and state legislations. In this regard, PMU needs to hire an experienced Environmental Specialist in its unit to effectively coordinate necessary studies as part of project preparation and implementation. Specific tasks by preparation and implementation/monitoring stages are as follows:

(i) Assist Central Water commission (CWC) in Environment Studies, ESDDs, ESIA and ESMP for all dam sub projects in reviewing the preparation and its successful execution at the respective states levels in line with Environmental and Social Management Framework (ESMF)of the Project.

(ii) Familiarize self with World Bankôs new ESF policy and advise on CWC actions to meet with ES standard during project implementation. In addition, will monitor and advise on actions for project to comply with Environmental and Social Commitment Plan, part of loan agreement.

(iii) Understand scopes of ESIA and management in consultancies procured or being procured for project planning and implementation under the project and ensure timely and quality deliverable.

(iv) Preparation or support to modify ToR and Bidding/contractual documents for Hiring of Consultant firms for EIA, EMP, Biodiversity assessment, and any studies, if required

(v) Facilitate co-ordination with DPR technical design and ESIA team as well as other relevant governmental officials/departments.

(vi) Provide all necessary support and facilitation on behalf of CWC to ESIA consultants and to investment planning and design teams on environment related aspects during site assessments,

[1] Note that some of the dams (e.g., in Kerala) are in fact dam complexes with more than one dam structure. For the purposes of DRIP-2, these are considered as one dam.

stakeholder consultations, field surveys, maintenance, consultation etc.

(vii) Will help states to co-ordinate with Revenue, PWD and Forest authorities in preparing and processing the forest diversion aspects, monitor and submit quarterly progress reports.

(viii) Undertake critical review of DPR reports and provide design inputs in agreement with CWC official for avoiding/minimizing/mitigating projectôs design induced environmental risk and impact

(ix) Review all draft and final deliverable submitted by the ESIA team and provide detailed comments. Provide overall evaluation, oversight and co-ordination during preparation of Environmental Screening/Scoping, ESIA, EMP reports including various other reports, formats, checklists and guidelines.

(x) Ensure integration of ESIA/ESMP findings in investment plans, engineering designs and bidding documents

(xi) Facilitate environmental, MoEFCC, GoI, CPCB/ SPCB, and forest related regulatory clearances as required

(xii) Assist in assessment of impacts to physical, biological, cultural and social environment, and identification of effective mitigation and management measures, as required

(xiii) Look for opportunities and propose / plan proactive measures to enhance sustainability of the project activities, as applicable

(xiv) Compilation of pollution monitoring data, reports preparation and co-ordination with the monitoring agencies.

(xv) Prepare plan for stakeholder engagement and communication with affected communities, relevant government agencies, and other stakeholders about the project

(xvi) Assist and guide CWC for information dissemination, stakeholder consultations, and proper disclosure of documents

(xvii) Capacity building activities for CWC and participating DRIP- 2 states / implementing agencies (IA), including general training of CWC/State WRD/ other IAs officers and Contractors on environmental aspects of dam construction, management and on-site (including preparation of training material); intensive training to selected/designated field Officials of the State Government and Environmental Officers of the Contractors

(xviii) Preparation of checklists/guidelines for sustainability of practices/ long term usage by CWC/ State WRD/ IAs

(xix) Supervision and monitoring to ensure compliance of environmental aspects with particular reference to preparation of status/monthly/quarterly reports for CWC and the World Bank on environmental aspects (such as regulatory clearances and reporting, tree cutting / forest clearance, EMP implementation, afforestation programme etc.); preparation of compliance reports for the Environment and Forests of State Governments/ Ministry of Environment and Forests (Govt. of India) (as required); preparation of compliance/completion reports of each phase; and review and follow up on reports submitted by the Contractors and/or Supervision Consultants.

(xx) Co-ordination with other departments and agencies with particular reference to preparation (as needed with regard to project scope) of applications and follow-up on Environmental Clearances; SPCB NOC; forestry clearances, tree cutting permissions, NOC for construction activities near area of physical cultural resources, associated facilities, wild life sanctuary, demarcated/non-demarcated forest etc.

(xxi) Any other duties as may be assigned for the efficient and smooth execution of the project by CWC

(xxii) The consultant shall be based full time at the CWC project office, with frequent field travel to different state project sites to monitor and evaluate implementation of ESMP measures are as per

planned schedule and in agreement ESCP and also to take corrective measures within limit of project agreement.

C. Qualifications:

The candidate with Bachelor of Civil Engineering/ Environmental Engineering with Masterôs Degree in Environmental Science/Engineering or Equivalent from a recognized University.

D. Experience:

(1) Minimum 10 years in the area of conducting ESIA, environment modelling & preparing Environmental Social Management plans for infrastructure projects including dams project.

(2) Essentially, preference will be given to candidate having experience of design review, integrating environmental requirements in design, preparing BOQ and budget for EMP, implementation of EMP in at least 2 externally aided/FIDIC based major highway projects in hilly and biodiversity rich area.

(3) He should have adequate experience in implementing EMPs and organizing training to Contractorôs and Employerôs staff. Experience in advisory position on procedures involved in obtaining Environmental & Forest clearances for project roads passing through protected forest, reserve forests, national parks or sanctuaries, etc is preferred.

(4) Field experience in assessing project site issues, vulnerabilities/risks, as well as supervising/inspecting/monitoring projects during implementation to mitigate and monitor environmental impacts.

(5) Strong understanding and past experience of implementing World Bank Environmental Safeguard policies and ESHS guidelines. Candidateôs familiarity with objectives and requirements of Bankôs new Environmental Social Framework will be an added advantage. He should have also thorough knowledge about dam construction and improvement aspects.

(6) Experience/familiarity with non-structural / ecologically focused management measures to prevent and minimize erosion issues and stabilization of hill slopes.

(7) Proficiency in use of Computers to manage data base and generation of reports, with overall good communication skills (in English and Hindi/local language).

(8) The applicant must be physically fit for extensive touring with age of less than 65 years.

E. Duration of assignment

The duration shall be for minimum period of 3 years, to be reviewed and renewed based on performance and work requirement. The consultant shall be based full time at the CWC project office in New Delhi and must be willing to undertake field visits and tours as per the project requirements.

Annexure 17: Suggestive ToR for óNodal Officerô at CPMU and at SPMU/ Implementing Agency

A. Roles and Responsibilities

The Nodal Officer is a full-time in-house staff, meeting qualification and experience criteria as set out in section óDô of this ToR. The role and extent of involvement of the Nodal Officer will be commensurate with the progress of activities of the sub-project. Draft outline of responsibilities are:

- First point of contact for all E&S activities of the sub-project on behalf of the IA.
- Assist in preparation, dissemination of E&S instruments of the Sub Project(s)
- Assist in Preparation of ToR, conducting selection and engagement process of E&S specialists/ EMC /contractor
- Coordinate with SPMU and CPMU, State government and WB (through proper channel) regarding all E&S issues
- Set up and assist in functioning of GRM for the Sub-Projects as well as for the Labour in accordance with the E&S commitments/ Framework/ Management Plans
- With support from E&S specialists, ensure sufficient awareness, implementation and report on E&S activities of Contractor, IA and other consultants engaged
- Help conduct stakeholder consultations in accordance with SEP and carryout necessary subsequent activities to incorporate stakeholder feedback, as appropriate
- Conduct training/awareness workshops/sessions regarding E&S to the relevant stakeholders as well as fulfil information disclosure requirements
- Coordinate with IA team, SPMU and CPMU team to undertake periodic review missions by the World Bank.
- Undertake necessary activities as set out in GBV action plan as provided in the ESMF
- Conduct periodic site visits to monitor, ascertain and report that the project activities are in compliance with the E&S plans. Record deviations and through SPMU initiate remedial measures
- Function as a member of the review committee to review the reports submitted by contractor/ consultants in respect of E&S issues.
- Ensure update of information in all digital platforms (websites) regarding E&S progress of Sub-projects
- Undertake capacity building activities on E&S with requisite support
- Prepare / quarterly status reports for CWC and the World Bank on E&S aspects (grievance management, implementation progress on management plans, etc.) based on site visits, inputs from contractors and construction supervision consultants.
- Undertake any other activities as may be assigned for the efficient and smooth execution of the project by IA, in accordance with the Environment and Social Commitment Plan of the project.

B. Qualifications and Experience

- Bachelors/ Masters/ Post Graduate degree in Civil/Mechanical/Environmental Engineering (or) Social Sciences relevant discipline e.g. Social work / Sociology / Anthropology or equivalent from a recognized University.
- For Departmental Officials, no experience is prescribed. However, departmental officers should not be less than Deputy Director / Executive Engineer/Deputy Executive Engineer level. In case of Nodal officers are to be hired , a minimum experience of 7 years experience of working in Dam rehabilitation activities/ specialized training in environmental/ Social management/ / familiarity in working on WB funded projects shall be preferred
- Proficiency in use of Computers to manage data base and generation of reports, with overall good communication skills

C. Duration of Assignment

It is desirable that Nodal officer shall have sufficient duration of service left, preferably 5-6 years, and shall not be due for transfer/postings in any other department/office. It is however, desired that the Department should retain/hire the Nodal officers for the entire period of the project.

Annexure 18: Consultations on ESMF

List of Participants in virtual consultation meetings on Draft ESMF, held during April 16-20, 2020

1. **Central Water Commission**

S. No	Name of Official	Designation
1.	Sh Gulshan Raj	CE, DSO and Project Director, DRIP Phase II and Phase III
2.	Sh Pramod Narayan	Director DSR and PD, DRIP
3.	Sh Amit Kumar Jha	Director, DSM Dte
4.	Sh Sameer Kumar Shukla	Director, FE&SA Dte
5.	Sh Saurabh Sharan	Deputy Director, DSR
6.	Sh Gaurav Singhai	Deputy Director, DSR
7.	ShBhise Yogesh Nanasaheb	Deputy Director, DSR
8.	ShAjitKataria	Deputy Director, DSR
9.	Sh Prabhat Kumar	Deputy Director, FE&SA Dte
10.	Sh Ankit Kumar	Deputy Director, FE&SA Dte
11.	Sh Satyam Aggarwal	Deputy Director, FE&SA Dte
12.	Sh Rohit Singh	Assistant Director, FE&SA Dte
13.	Sh Yogesh Gupta	Assistant Director, FE&SA Dte
14.	Sh Awadhesh Kumar	Deputy Director, DSM Dte.
15.	Sh Nitin Kumar	Deputy Director, DSM Dte.
16.	Sh Vivek Kumar Soni	Assistant Director, DSM Dte.

2. **Water Resource Department, Government of Rajasthan**

S. No.	Name of the Official	Designation
1.	Sh. Amarjeet Singh	Chief Engineer SWRPD, DSO & Nodal officer DRIP
2.	Sh. Rajesh Kumar Kaloria	Executive Engineer, SPMU-DRIP
3.	Sh. Amit Kumar Sehara	Assistant Director, SPMU-DRIP
4.	Sh. Khushbu Joshi	Assistant Director, SPMU-DRIP
5.	Sh. Anil Kumar	Assistant Engineer

3. Water Resource Department, Government of Tamil Nadu

S. No.	Name of the Official	Designation
1.	Dr.R.Rani	PD& SE, TNSPMU
2.	Tmt. I. Selvapackiam	EE, (Procurement), TNSPMU
3.	Tmt. V.Veeralakshmi	EE (Technical), TNSPMU
4.	Tmt. K.Mirunalini	EE (Training), TNSPMU
5.	C.Johnci Rani	AEE, TNSPMU

4. Tamil Nadu Generation and Distribution Corporation (TANGEDCO)

S. No.	Name of the Official	Designation
1.	Sh. C Ramesh	Chief Engineer/ Civil Designs, TANGEDCO
2.	Sh. P Chandra Mohan	EE, (Procurement), PD/SPMU, TANGEDCO
3.	Sh. G. Radhakrishnan	SE/ Civil, TANGEDCO
4.	Smt. M. Rani	EE/ Civil, TANGEDCO
5.	Sh. J. Chellaiah	EE/ Civil, TANGEDCO
6.	Smt. P. Rameshwari	EE/ Civil, TANGEDCO

5. Bhakra Beas Management Board (BBMB)

S. No.	Name of the Official	Designation
1.	Sh. Arvind Sharma	Project Director DRIP & Director Dam Safety
2.	Sh. S.K. Bedi	Director Technical DRIP & Director Design

6. Water Resources Department, Government of Chhattisgarh

S. No.	Name of the Official	Designation
1.	Sh. C Xaxa	Chief Engineer, Monitoring, Raipur
2.	Sh. K S Dhruv	Chief Engineer, Mahanadi project, Raipur
3.	Sh. Virendra Tiwari	SE, MRP, Dam Circle, Raipur
4.	Sh. Sh. R K Nagaria	SE, Mahinadi Circle, Raipur

5.	Sh. P K Sharma	EE, O/O of Einc

7. Water Resources Department, Punjab

S. No.	Name of the Official	Designation
1.	Sh. Ashwani Kumar Kansal	CE/DSO
2.	Sh SK Saluja, CE/RSD	CE/Ranjit Sagar Dam
3.	Sh Varinder Kumar Goel	CE/Kandi Area Development (KAD)
4.	Sh Rajinder Ghai	Executive Engineer
5.	Sh Arun Kumar Gupta	ADE/SPMU
6.	ShHarinder Pal Bedi	Executive Engineer /KAD
7.	ShVikant Anand	Executive Engineer /KAD
8.	ShVias Dev	SE/RSD
9.	Sh Bhumi Chand Thakur	Executive Engineer /RSD
10.	Sh Ajay Rampal	Executive Engineer /RSD
11.	Sh Abhishek K Saini	Executive Engineer /RSD

8. Water Resources Department, Government of Uttar Pradesh

S. No.	Name of the Official	Designation
1.	Sh. C.S. Vishwakarma	Chief Design
2.	Sh. S.J. Choubey	Director Dam Safety

9. Water Resource Department, Government of Madhya Pradesh:

S. No.	Name of the Official	Designation
1.	Sh. Surendra Kumar Pitalia	Director, SPMU, DRIP Bhopal
2.	Sh. Ashok Kumar Jain	Executive Engineer,

		Sukta Project, Khandwa
3.	Sh. G. K. Agrawal	Assistant Director, SPMU-DRIP

10. Water Resource Department, Government of Maharashtra:

S. No.	Name of the Official	Designation
1.	Sh. M. A. Matey	Nodal Officer, SPMU (DRIP) & CE, Planning and Hydrology, Nashik
2.	Sh. Atul Kapole	CE (Irrigation) & Joint Secretary Mantralaya, Mumbai
3.	Sh. Y. K. Bhadane	Project Director, SPMU (DRIP) & SE, DSO, Nashik
4.	Sh. Himesh Dushani	DSO, Executive Engineer

11. Water Resources Department, Government of Karnataka

S. No.	Name of the Official	Designation
1.	Sh. Anil Kumar	Additional Secretary and Nodal Officer, DRIP
2.	Sh. Vijaya Kumar R	Project Director, SPMU-Karnataka
3.	Sh. Sivakumar D	AEE, SPMU-DRIP

12. Water Resource Department, Government of Manipur

S. No.	Name of the Official	Designation
1.	Sh. G. Robindro Sharma	Engineer-in-chief, MWRD
2.	Sh. Rohit Ahanthem	Project Director, SPMU-DRIP
3.	Sh. Chitamchongtham	Assistant Project Director, SPMU-DRIP
4.	Sh. MiachelIrom	Assistant Project Director, SPMU-DRIP
5.	Sh. Pradeep Maisnam	Data Base expert

13. Water Resource Department, Government of Meghalaya

S. No.	Name of the Official	Designation
1.	Sh. M. Shangpliang	Director ï Generation, MePGCL
2.	Sh. B M War	Project Director, SPMU-DRIP

14. Water Resource Department, Government of Kerala

S. No.	Name of the Official	Designation
1.	Sh. Joshy K A	Chief Engineer, IDRB, KWRD
2.	Sh. Biju D	Director, KWRD
3.	Sh. Salil. H	Finance Officer, KWRD
4.	Sh.Priyesh R	Joint Director, SPMU KWRD
5.	Smt Manju S	Deputy Director, SPMU, KWRD
6.	Sh. Shabu Roy	Deputy Director, SPMU, KWRD
7.	Sh. Rajesh S	Assistant Director, SPMU, KWRD
8.	Smt Priya B	Assistant Director, SPMU, KWRD
9.	Smt Bindu L	Assistant Director, SPMU, KWRD
10.	Sh. Deepak KS	Assistant Director, SPMU, KWRD

15. Kerala State Electricity Board Limited (KSEBL)

S. No.	**Name of the Official**	**Designation**
1.	Smt. Supriya S	Chief Engineer, KSEB
2.	Sh. Mohanan P	Deputy Chief Engineer, KSEB
3.	Sh. Jaykumar	Assistant Engineer

16. Water Resources Department, Government of Odisha

S. No.	Name of the Official	Designation
1.	ShPurna Chandra Sahoo	Chief Engineer, Dam Safety
2.	Sh Subhash Chandra Rath	Director, SPMU, DRIP
3.	Sh Arun Kishore Das	Dy. Director, Dam Safety
4.	Sh Tapas Ranjan	Dy. Director, Dam Safety

17. Water Resources Department, Government of Gujarat

S. No.	Name of the Official	Designation
1.	Sh J K Trivedi	Superintending Engineer and Nodal Officer, SPMU
2.	Sh R M Patel	Superintending Engineer, Ukai Dam
3.	Sh Rajesh Verma	DEE and Member SPMU
4.	Sh A H Chaudhary	Asst. Engineer

18. The World Bank

S. No.	Name of the Official	Designation
1.	Chabungbam Rajagopal Singh	Task Team Leader and Sr. Water Resources Specialist
2.	Halla Maher Qaddumi	Co-Task Team Leader and Sr. Water Economist
3.	S. Krishnamurthy	Sr. Financial Management Specialist
4.	Pyush Dogra	Sr. Environmental Specialist
5.	G. Srihari	Social Development Specialist
6.	Sreenivas Devarakonda	Procurement Specialist
7.	Satoru Ueda	Lead Dam Safety Expert
8.	JoopStoutjesdijk	Lead Water Resources Specialist
9.	Jun Matsumoto	Sr. Water Resources Specialist
10.	Mehul Jain	Climate Change Specialist
11.	Jai Mansukhani	Senior Program Associate

12.	Tiziana Smith	Young Professional
13.	Karthik Laxman	Consultant
14.	Hiromi Yamaguchi	Consultant
15.	R.S. Pathak	Consultant
16.	Andy Przemyslaw Zielinski	Consultant
17.	Georges Darbre	Consultant
18.	Ajit Patnaik	Consultant
19.	Anish Kumar Bansal	Consultant

2. Photo capture of Meeting participants in virtual consultation meetings on ESMF

Shivendra's iPad
Raj
Ajit Pattnaik
iPhone
Gulshan Raj
J K Trivedi
Jigar Jarlwala
Georges
Ajay Chaudhari

Annexure 19: Summary of Stakeholder Consultations at Sub Project Sites

While preparing the ESDDs for the first set of 10 dams, public consultation meetings were held at all locations to get an insight about the baseline condition and problems associated with existing dam operation systems and other related issues. These consultations mainly acted as a forum to inform stakeholders about the Project and also to elicit their opinion on the proposed works relating to dam safety. Issues relating to Project components; legacy social issues, role of the community, grievance redress etc., were discussed. Details of consultations held for DRIP II, at this stage are listed below in Table 1.

Table1: Details of Consultations

S. No	Date	Place	Type of Stakeholders	Number of Participants (M/F)
1	16.01.2020	SPMU, Sinchai Bhavan, Jaipur	PMU Team headed by PD, DRIP-II Rajasthan, CWC Deputy Director, Consultants from CWC and Consultants from World Bank	10 (6/4)
2	17.01.2020	Bisalpur Dam, Rajasthan	Other interested parties	15 (15/0)
3	18.01.2020	Gambheeri Dam, Rajasthan	Other interested parties	6 (6/0)
4	18.01.2020	Mahi Bajaj Sagar Dam, Rajasthan	Other interested parties	10 (9/1)
5	19.01.2020	SomKamla Dam, Rajasthan	Other interested parties	4 (3/1)
6	02.02.2020	Imphal Barrage, Manipur	Other interested parties	6 (6/0)
7	02.02.2020	Singdha Dam, Manipur	Other interested parties	10 (10/0)
8	10.02.2020	Jawai Dam, Rajasthan	Other interested parties	10 (10/0)
9	10.02.202	SukliSelwada Dam, Rajasthan	Other interested parties	47 (42/5)
10	11.02.2020	Chappi Dam, Rajasthan	Other interested parties	16 (16/0)
11	11.02.2020	MatriKundia Dam, Rajasthan	Other interested parties	15 (7/5)

Consultation Findings are presented by type of stakeholder group:

Affected parties: As the Project interventions at the 10 dams where consultations were held do not cause any physical or economic displacement and as such do not directly affect the public in general, none of the participants could be considered as affected parties.

Other interested parties: They informed that the Dam officials alert them with siren during gates operation. There is as such no specific impact on women due to dam operations. They have also suggested improving the security at the dams for enhanced safety to dam premises and assets and also to large tourist population, who frequent during the monsoon season. They mentioned that whatsapp groups exist within their communities and any information about employment opportunities would be helpful.

Disadvantaged and vulnerable groups The Project activities under these 10 dams, is not likely to trigger additional disadvantage or create vulnerability among these group of stakeholders. During preparation of Dam specific SEPs, efforts will be required to address these groups.

Majority of stakeholders wanted to have continued consultation meetings during Project preparation and subsequently during Project implementation. The participants requested for periodic consultations to enable them to contribute in the Project as well as benefit from them by getting to know about work opportunities. The participants agreed that they are mobile literate and communications can be sent through mobile messaging services or through websites. The stakeholders were appreciative of the interventions and expressed their concurrence, as any strengthening work on the dam will only help them - dam being their lifeline over the last several years.

Appendix 1: Standard Environmental and Social Management Plan (ESMP)

DAM REHABILITATION AND IMPROVEMENT PROJECT PHASE II

(Funded by World Bank)

STANDARD ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

CENTRAL WATER COMMISSION
GOVERNMENT OF INDIA

August 2020

IMPORTANT NOTE

This Standard ESMP is prepared with management plans for all relevant ESSs.

Dam specific inputs and Management Plans of Bisalpur Dam and Tribal Development Plan of Mahi Bajaj Sagar Dam are used in this Standard ESMP purely for guidance purposes.

This Standard ESMP shall be updated with sub-project specific data/ ESDD outcomes/management plans as identified in ESDD for preparing sub-project Dam specific ESMP, as applicable.

Table of Contents

CHAPTER 1: PROJECT OVERVIEW AND FINDINGS OF ESDD 207
1.1. PROJECT OVERVIEW 207
1.2. OBJECTIVE AND CONTEXT OF ESMP 207
1.3. SUB PROJECT DESCRIPTION 208
1.4. PROPOSED INTERVENTIONS/ ACTIVITIES AND INTENDED OUTCOMES 208
1.5. ESDD FINDINGS AND KEY IMPACTS TO BE ADDRESSED 209
CHAPTER 2: ENVIRONMENTAL AND SOCIAL MANAGEMENT PLANS 211
2.1 GENDER BASED VIOLENCE OR SEA/SH RELATED ACTIONS (ESS1) 211
2.2 LABOR MANAGEMENT PROCEDURE (ESS2) 211
2.2.1 Overview of labor use in the project 211
2.2.2 Assessment of Key Potential Risks 212
2.2.3 Responsible staff 213
2.2.4 Policies and procedures 213
2.2.5 Age of employment 218
2.2.6 Terms and conditions 218
2.2.7 Grievance Mechanism 219
2.2.8 Contractor Management 220
2.2.9 Community Workers 220
2.3 RESOURCE EFFICIENCY AND POLLUTION PREVENTION (ESS3) 220
2.3.1 Pollution Prevention and Environment Quality Management Plan (PPEQMP) 220
2.3.2 Overview of PPEQMP 221
2.3.3 How water and other resource use will be planned 224
2.3.4 Environmental Quality Monitoring Plan and protocols 224
2.3.5 Reporting 225
2.4 COMMUNITY HEALTH AND SAFETY (ESS4) 226
2.4.1 Overview 226
2.4.2 Hazard Identification 226
2.4.3 Hazard Risk Management 227
2.4.4 Communication and Consultation (Workers & community) 227

2.4.5 Emergency Management Plan 228
2.4.6 Emergency control Centre 228
2.4.7 Reference to IFC Environmental Health and Safety Guidelines 228
2.5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS5) 229
2.6 BIODIVERSITY CONSERVATION MANAGEMENT PLAN (ESS6) 232
2.6.1 Overview of Biodiversity conservation and Management Plan (BCMP) 233
2.6.2 Sub Project Description 233
2.6.3 Inventory of Terrestrial and Aquatic Flora Fauna 234
2.6.4 Likely Impact of Project Activities on Biodiversity areas 234
2.6.5 Regulatory Applicability and requirements 234
2.6.6 Conservation and Management Plan 234
2.6.7 Monitoring, Compliance reporting and Budget 235
2.7 TRIBAL DEVELOPMENT PLAN (ESS7) 235
2.7.1 TDP to a sub-project 235
2.7.2 Proposed project actions in the area 236
2.7.3 Tribal Groups in the Area 236
2.7.4 Previous Consultations 236
2.7.5 Social impacts, if any 237
2.7.6 Measures to avoid, minimize impacts, if any 237
2.7.7 Baseline Details 237
2.7.8 Brief summary of tribal welfare programs in the state/project area 239
2.7.9 FPIC 240
2.7.10 Action Plan to be implemented with EAP 240
2.8 CULTURAL HERITAGE PROTECTION PLAN (ESS8) 241
2.8.1 Scope of Cultural Heritage Protection Plan (CHPP): 241
2.8.2 CHPP Preparation and Approval 241
2.8.3 Contents of Site Specific CHPP 241
2.9 STAKEHOLDER ENGAGEMENT PLAN (ESS10) 242
2.9.1 Identification of Stakeholders 242
2.9.2 Stakeholder Consultation 242
2.9.3 Stakeholder Engagement and Project cycle 243
2.9.4 Timelines for Information disclosure and Feedback 244
2.9.5 Monitoring and reporting 245

CHAPTER 3: ENVIRONMENTAL AND SOCIAL MITIGATION AND MONITORING PLAN.. 246

3.1 PURPOSE OF ES MITIGATION MANAGEMENT AND MONITORING 246

CHAPTER 4. IMPLEMENTATION ARRANGEMENTS AND ESMP BUDGET 255

4.1 IMPLEMENTATION AND SUPERVISION ARRANGEMENTS..... 255

List of Annexures

ANNEXURE 1: OUTLINE OF CONTRACTORõS ESMP 259

ANNEXURE 2:SUB-PROJECT SPECIFIC E&S SENSITIVE INFORMATION 262

ACRONYMS

AIDS:	Acquired immune deficiency syndrome
CPCB:	Central Pollution Control Board
CPMU:	Central Project Management Unit
CWC:	Central Water Commission
DMP:	Debris Management Plan
DRIP:	Dam Rehabilitation and Improvement Project
EAP:	Emergency Action Plan
EMC:	Engineering and Management Consultant
ESCP:	Environment and Social Commitment Plan
ESDD:	Environmental and Social Due Diligence
ESF:	Environmental and Social Framework
ESHS:	Environmental, Social, Health and Safety
ESIA:	Environmental and Social Impact Assessment
ESMF:	Environmental and Social Management Framework
ESMP:	Environmental and Social Management Plan
ESS:	Environmental and Social Standard
GBV:	Gender Based Violence
GRM:	Grievance Redressal Mechanism
HIV:	Human immunodeficiency virus
IA:	Implementation Agency
LMP:	Labour Management Procedure
LPG:	Liquefied Petroleum Gas
MPR:	Monthly Progress Report
NDMA:	National Disaster Management Authority
NGO:	Non-Governmental Organization
OHS:	Occupational Health & Safety
OHSMP:	Occupational Health and Safety Management Plan
OHSP:	Occupational Health and Safety Plan
PDO:	Project Development Objective
PPE:	Personal Protective Equipment
PUC:	Pollution Under Control
QPR:	Quarterly Progress Report
RCP:	Resource Conservation Plan
SDMA:	State Disaster Management Authority
SEAH:	Sexual Exploitation, Abuse and Harassment
SEF:	Stakeholder Engagement Framework
SEP:	Stakeholder Engagement Plan
SPMU:	State Project Management Unit
ST:	Schedule Tribe
TDP:	Tribal Development Plan
TPA:	Third Party Agency
WB:	World Bank

CHAPTER 1: PROJECT OVERVIEW AND FINDINGS OF ESDD

1.1. PROJECT OVERVIEW

The proposed Dam Rehabilitation and Improvement Project (DRIP II) would complement the suite of ongoing and pipeline operations supporting Indiaôs dam safety program. The project development objective (PDO) is to is to increase the safety of selected dams in participating States and to strengthen dam safety management in India. Project Components include: Component 1: Rehabilitation and Improvement of Dams and Associated Appurtenances (US$ 577.14 million); Component 2: Dam Safety Institutional Strengthening (US$45.74 million);Component 3: Incidental Revenue Generation for sustainable operation and maintenance of dams(US$26.84million); Component 4: Project Management (US$68.13 million). Component 5: Contingency Emergency Response Component (US$0 million).The project is likely to be implemented for 300 dams in 18 states across the country. The primary beneficiaries of the project are the communities that live in dam breach flood inundation areas and the communities that depend on water, irrigation and electricity services provided by the dams that could be compromised by poor dam performance or failure. In addition to saving lives, improved dam safety will avoid potential flood damage to houses, farm areas, infrastructure (roads, bridges, other public and private infrastructure) and industrial and commercial facilities. Improved dam safety will also reduce the likelihood of service interruptions due to dam failure as well as potentially improving dam service provision, overall efficiency and storage capacity, including during drought periods.

1.2. OBJECTIVE AND CONTEXT OF ESMP

A project level ESMF has been prepared and disclosed. In compliance with the ESMF, Environmental and Social Due Diligence has been carried out employing E&S risk screening templates. ESMF mandates that for all Low and Moderate Risk projects, a standard ESMP shall be prepared, which will be updated based on the sub project specific activities. Accordingly, Standard ESMP is prepared describing the process to manage the impacts identified during the ESDD. The ESMP also determines the implementation schedule, roles and responsibilities, reporting and monitoring requirements. The management plans included in this ESMP outline the environmental and social mitigation measures and management controls to be implemented in compliance with the E&S commitments.

This ESMP is a live document and is subjected to periodic review and updates. The Implementation Agency and contractors are primarily responsible for the implementation of the ESMP. Environmental and social management plans covering various phases, prepared as part of this ESMP shall be updated in line with the dynamics of project progress and stakeholder engagement inputs. If during the operationalization of this ESMP, new conditions emerge and risks and impacts differ from that identified in the ESDD, a new ESMP may be prepared adapting to the new conditions.

1.3. SUB PROJECT DESCRIPTION

This section briefly describes the sub-project as mentioned in ESDD. As an illustration, description of Bisalpur Dam is included here. This section should be customised for each sub-project.

The Bisalpur Dam across Banas river, a tributary of Chambal river was constructed in the year 1999 to create irrigation and drinking water supply capacity. The dam is located in Tehsil Toda Raisingh, near Bisalpur in Tonk district of Rajasthan. The dam supplies drinking water to the tune of 11.1 TMC to Jaipur and en-route villages and 5.1 TMC to Ajmer and en-route villages. Besides, irrigation supplies from the dam is of the order of 8 TMC to 81000 ha command area in Tonk, Todaraisingh, Uniyara and Deoli tehsils through 51 Km long right main canal and 18.65 km long left main canal. The nearest town is Deoli which is situated on Jaipur- Kota NH-12. Nearest airport is Jaipur, which is 185 km away from Dam and nearest Railway station is Bundi, which is 85 km from Dam. Distance of Bisalpur Dam from district Headquarter Tonk is about 72 km. Nearest Highway to Project is Jaipur-Kota State Highway (SH 52). The Project site is 19 km from Santhali village on SH 52 and 25 km from Deoli Tehsil.

1.4. PROPOSED INTERVENTIONS/ ACTIVITIES AND INTENDED OUTCOMES

This section gives details of proposed activities under the rehabilitation work as given at section 1.2 of ESDD report. Again as an illustration, description of rehabilitation work proposed at Bisalpur dam is given below. This section should be customised for each sub-project.

The following rehabilitation proposals as described in the Project Screening Template (PST) have been formulated based on Dam Safety Review Panel (DSRP) recommendations.

1. **Structural Rehabilitation Works**

   i Resetting of disturbed U/S Rip-Rap.

   ii Cleaning/Reaming of Drainage holes (In Dam Body and foundation).

   iii Repairs to Parapet walls.

   iv Treatment of Honeycombed area in upstream NOF.

   v Repair of damage to spillway crest/Glacis and energy dissipation arrangement.

   vi Repair to Downstream Right side Training wall.

   vii Construction of RCC Retaining wall in downstream L/S and R/S to improve flow condition.

   viii Repairs of hoist.

   ix Repairs to steps on downstream face.

   x General Maintenance and upkeeping of 18 Nos radial gates and Hoist Bridge.

   xi Providing and installing 500 KVAR generator.

xii Providing lighting over Dam and surrounding areas.

xiii Providing Epoxy thermal sealing on Dam.

xiv Providing & Fixing of armoured H.T. Service line and L.T. armoured cable for Control room, Gallery and Gantry Crane.

2 Basic Facilities Improvement

i Construction of CC Access road to Gallery on downstream of dam.

ii Renovation of view point and office.

iii Providing Lightening arrester.

iv Providing lightening in Drainage Gallery.

3 Instrumentation, SCADA, Surveillance system, etc.

i Dam Instrumentation (Geo-technical, hydro-meteorological, Seismic, Geodetic, data collection, storage, data transfer, analysis, retrieval, Operation & Maintenance etc.).

4 Tourism/Fisheries/Hydropower Development

i Providing floating pontoons, jetties, pedal boat, speed boat, light house and other non-permanent structures at island.

Tourism components (s. no 4 above) are not considered as part of ESDD and ESMP as feasibility studies including various options and their possible impacts on environmental and social are yet to be carried out and shall be done separately as committed in ESCP.

1.5. ESDD FINDINGS AND KEY IMPACTS TO BE ADDRESSED

This section should also be customised for each sub-project in line with ESDD findings.

ESDD has been carried out considering the proposals/interventions mentioned in the PST. The screening and site assessment exercise has identified the nature of risk and impacts, with level of risk and the outcomes are documented in ESDD report. The risks/impacts identified are related to labour employment and working conditions, pollution generation from rehabilitation work and impact on physical environment, SEA/SEAH and GBV risks. These risks are low to moderate and localised, short term and temporary in nature which can be managed following management plans and guidelines.

Environment risks of air, water, noise, land use, soil and resource use for most of the activities are moderate as well as social risks of labour. Environment risks of pollution downstream and upstream is categorised as Moderate for some of the activities along with that of labour camp. As per ESMF, Occupational Health and Safety (OHS) risk is envisaged across the project interventions / dams, a separate OHS plan in accordance with WBG Environmental Health and Safety (ESHS) Guidelines and Good Practice Note on Environmental, Health, and Safety approaches for Hydropower Projects (2018) shall be applicable to all sub-projects. Hence it was not being considered under screening criteria.

Occupational health and safety is considered an important requirement and shall be managed as per OHS plan and will be part of Contractorôs ESMP.

Based on ESDD findings, WB Environmental & Social Standards (ESS) applicability analysis and recommended management plan is given at Table 1.1.

Table 1.1 WB-ESS Applicability Analysis and Recommended management plan

WB-ESS	Recommended Management Plan	Applicability To Bisalpur Dam*
ESS1: Assessment and Management of Environmental and Social Risks and Impacts	Gender Based Violence or SEA/SH related actions	Applicable
ESS2: Labour and Working Conditions	Labour Management Procedure including Occupational health and Safety	Applicable
ESS3: Resource Efficiency, Pollution Prevention and Management	Pollution Prevention and Environment Quality Management Plan including Debris Management	Applicable
ESS 4: Community Health and Safety	Community Health and Safety Plan	Applicable
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Resettlement Action Plan/ Livelihood improvement Plan	Not Applicable
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural resources	Biodiversity Conservation Plan	Applicable
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Tribal Development Plan	Not Applicable
ESS 8: Cultural Heritage	Cultural Heritage Protection Plan	Not Applicable
ESS 10: Stakeholder Engagement Plan	Stakeholder Engagement Plan	Applicable

Applicability of WB-ESS standards will be assessed for each sub-project during ESDD; the above table is for Bisalpur dam to be used as reference.

The above recommended plans are discussed in detail in Chapter 2.

CHAPTER 2: ENVIRONMENTAL AND SOCIAL MANAGEMENT PLANS

The E&S management plans prepared for the risks and impacts identified as part of ESDD are presented hereunder. Each plan includes mitigation measures specific to the risks and impacts and where applicable, sets out the framework for other plans and procedures to be developed later in the Project. Construction contractors will develop and implement their own site specific C-ESMPs.

2.1 GENDER BASED VIOLENCE OR SEA/SH RELATED ACTIONS (ESS1)

The following key actions are to be ensured during implementation:

S. No.	Key Action to address GBV/SEA/SH Risks	By Whom
1	Clearly define SEA/SH requirements in Bid-documents and also the requirement for a CoC which addresses SEA/SH, using Standard WB procurement documents	SPMU
2	Operationalize or constitute Internal Complaints Committee as per Prevention of Sexual Harassment at Workplace procedure	SPMU
3	Implement appropriate project-level activities such as: separate, safe and easily accessible facilities for women and men in the place of work and the labour camps. (e.g. toilets should be located in separate areas, well-lit) display signs that the project site is an area where SEA/SH is prohibited.	Implementation by Contractor / GBV Focal Point at SPMU& overall supervision by Engineer in Charge
4	Ensure Codes of Conduct are clearly understood and signed by those with a physical presence at the project site; Train project staff on the behaviour obligations under the CoCs and Disseminate CoCs (including visual illustrations) and discuss with employees and local communities.	Engineer in Charge Contractor
5	Undertake regular M&E of progress on SEA/SH prevention and response activities, including reassessment of risks as appropriate.	GBV Focal Point at SPMU/IA

Implementation costs would include: preparation of sign boards, posters, conducting of awareness trainings by Implementing Agency and also by Contractor.

2.2 LABOR MANAGEMENT PROCEDURE (ESS2)

2.2.1 OVERVIEW OF LABOR USE IN THE PROJECT

Number of Project Workers: Approximately 60 workers at different points of time (Direct workers, Contracted workers and Community workers) shall be engaged for the rehabilitation works

Characteristics of Project Workers: As per the proposed execution strategies for all Low to Moderate risk sub-projects, the following categories of project workers are identified:

iv) Direct workers ï all the existing dam site officials including those sent on deputation from other departments involved in the project activities;

v) Contracted workers - all IAs would engage Contractors to undertake rehabilitation works; agencies/firms to support core service functions such as SCADA systems, etc. These contractors shall bring skilled Migrant workers for some of more specialized tasks; and

vi) Community workers (or volunteers particularly for EAP).

Timing of Labor requirements: See Table below:

S.No.	Type	Numbers	Locations	Duration	Skills required
1	Direct Workers (Project officials)	5-7	Dam site	Throughout	Executive and Supervisory
2	Contracted Workers	30-50	Dam site	36 months	Varied (skilled, semi-skilled)
3	Community Workers	10-15	Villages/areas in the vicinity of the dam	Only during EAP implementation	Community facilitation skills

Hence as per WBôs guidance note[68], for such workers, Contractor needs to prepare detailed profile of Workforce as per table below:

Key work activities	Schedule for such activities	Duration of contract	Rotation	Place of residence		
				workers from community	Within local community	On site

2.2.2 ASSESSMENT OF KEY POTENTIAL RISKS

Labour related risks would include:

- Safety issues while at work like injuries/accidents/ fatalities, Occupational health and safety risks due to exposure of workers to unsafe conditions while working at heights, working using lifts, handling of equipment and machinery, exposure to air and noise pollution etc. will be addressed through OHS guidelines.
- Short terms effects due to exposure to dust and noise levels, while atwork
- Inadequate accommodation facilities for labour, including inadequate sanitation and health facilities
- Discrimination in Employment (e.g. abrupt termination of the employment, working conditions, wages or benefits etc.)
- Sexual harassment at work

[68] ESF/SAFEGUARDS Interim Note: COVID-19 consideration in constructions/civil works projects

- Absence or inadequate or inaccessible emergency response system for rescue of labour/workforce in situations of natural calamities.
- Health risks of labour relating to HIV/AIDS and other sexually transmitted diseases
- Non-payment of wages
- Unclear terms and conditions of employment
- Discrimination and denial of equal opportunity in hiring and promotions/incentives/training opportunities
- Denial for workersô rights to form workerôs organizations, etc.
- Absence of a grievance mechanism for labour to seek redressal of their grievances/issues

2.2.3 RESPONSIBLE STAFF

See Table below for list of key activities with responsibilities:

S.No.	Activity	Responsibility
1	Engagement and management of Contractors	SPMU of IA (e.g. WRD)
2	Engagement and management of Sub-Contractors	Contractor
3	Occupational Health and Safety (OHS)	Engineer-In-Charge
4	Training of Workers	Engineer-In-Charge
5	Addressing worker grievances	Contractor (with oversight by IA)

2.2.4 POLICIES AND PROCEDURES

These are listed below under the following sub-headings: i) Incidents and Accident Notification; ii) GBV/SEAH related iii) Occupational Health and Safety; and iv) COVID considerations.

i) **Incidents and Accident Notifications:** The contractor will promptly notify to the IA/SPMU within 24 hours any major incident or accident having significant impact on the environment, tangible cultural heritage, communities, the public or workers. They will provide sufficient detail regarding the incident or accident, indicating immediate measures taken to address it, and including information provided by any contractor and supervising entity. Further the SPMU will appraise this to CPMU and WB.

ii) **GBV/SEAH related:** More than 95% of the contract labor is expected to be men, and womenôs participation as contract labor or community labor is going to be very low. Contractors will need to maintain harmonious relations with local communities by ensuring laborers/workers adhere to Code of conduct (CoC). The CoC commits all persons engaged by the contractor, including sub-contractors and suppliers, to acceptable standards of behavior. The CoC will include sanctions for non-compliance, including non-compliance with specific policies related to gender-based violence, sexual exploitation and sexual harassment (e.g., termination). The CoC will be written in plain language and signed by each worker to indicate that they have:

- received a copy of the CoC as part of their contract;
- been explained the CoC to them as part of induction process;
- acknowledged that adherence to this CoC is a mandatory condition of employment;
- understood that violations of the CoC can result in serious consequences, up to and including dismissal, or referral to legal authorities.

To mitigate potential risks related to on-site safety and GBV, the Contractor/ will undertake actions as given in Table below:

S.No.	Action	Timelines
1	Separate, safe and easily accessible facilities for women and men in the place of work and the labour camps. (e.g. toilets should be located in separate areas, well-lit)	Throughout construction period
2	Display signs that the project site is an area where SEA/SH is prohibited.	Throughout construction period
3	Ensure Codes of Conduct are clearly understood and signed by those with a physical presence at the project site;	Upon joining
4	Train project staff on the behavior obligations under the CoCs and Disseminate CoCs (including visual illustrations) and discuss with employees and local communities.	Periodic; every six months

iii) Occupational Health and Safety:

IA is committed to:

- Complying with legislation and other applicable requirements which relate to the occupational health and safety hazards.
- Enabling active participation in OH&S risks elimination through promotion of appropriate skills, knowledge and attitudes towards hazards.
- Continually improving the OH&S management system and performance.
- Communicating this policy statement to all persons working under the control. of IA with emphasis on individual OH&S responsibilities.
- Availing this policy statement to all interested parties.

To avoid work related accidents and injuries, the contractor shall ensure following Doôs and Donôts at site will:

- ***Pre employment Health Check up***: Ensure that health of each worker is checked and health record is maintained before deputing them to work.
- ***Deployment of EHS officer :*** Designate a person responsible for OHS who is fully acquainted with handling of OHS issues
- ***Induction training***: Ensure that every workers is given OHS orientation training which will include use of PPE, first aid, use of fire extinguishers, action to be taken in case of accidents, caution to be exercised during working at height or confined areas, respecting system and procedures evolved at site for safe working. Training shall create enough awareness amongst workers so that they take reasonable care to avoid acts or omissions that are likely to result in injury to self, or the other workers/and other people.
- ***First Aid***: Ensure that first aid box is provided at each workplace with easily identifiable location. Few workers shall be trained as first aider including in CPR techniques.
- ***PPE***: Ensure availability of PPE. helmet, boot, earplug (for noisy areas) , mask for dusty areas, gloves, safety belt and safety jacket.

- ***SOPs:*** Define SOPs (standard operating procedures) for Woking at height or confined areas which will include minimum two persons working, one at work and another standby as rescuer.
- ***Ventilation*** : Maintain adequate ventilation at confined areas and at workplace.
- ***Illumination*** : Maintain adequate illumination at all workplaces.
- ***Electric Hazards*** : Prevent exposure to electrical hazards.
- ***Fire Protection***: Ensure adequate fire extinguisher (as per type of fire hazard viz A, B , C) are placed at workplace.
- ***Dust Control :*** Ensure that workers are not exposed to high dust and noise level which can affect their health. Use dust suppressing system like water sprinkling and muffler or acoustic enclosures for noise generating system.
- ***Gas Cylinder handling***: Acetylene and oxygen/gas cylinders shall be handled using trolley where these cylinder are securely separated with each other for its safe use.
- ***Drinking Water and Sanitation***: Ensure that safe drinking water is available at each work site. Also mobile toilets fitted with anaerobic sewage treatment system are provided at each work site.
- ***Barricading and securing the work areas***: Each hazardous work area, if any, have safety barricading depending on nature of hazard viz trip, fall danger, restricted entry area, electrical hazard.
- ***Safety Signage and Mock Drill***: Place adequate safety caution and signage in local languages for awareness to workers. Also conduct periodic mock drill.
- ***Back-up Medical facility***: identify and tie up with equipped hospital capable of providing ambulance and medical facilities or handling major injuries.
- ***Accident*** Reporting ***Analysis and Prevention***: Identify the reportable accidents[69], analyse the cause of each reportable accident, maintain the record with analysis and take corrective action based on cause analysis for prevention of such accidents in future.
- ***Caution from Covid-19 scenario***: Provide multiple entries for workers to avoid crowding depending upon site condition. Ensure that physical distancing is maintained as far as possible at workplace. Each workers shall be provided with face mask.
- ***Compliance to law***: Ensure those legal requirements are followed like restriction on use of Child labour etc.

DON'T

- Do anything which may leads to risk to established health, safety and well being rules or relevant health, safety and well being regulatory requirements.

[69] An accident which causes death or which causes any bodily injury by reason of which the person injured is prevented from working for a period of forty-eight hours or more immediately following the accident (as per Building and Other Construction Workers Act, 1996)

- Jeopardise mental and physical well being or that of people you work with by, for example, imposing unreasonable deadlines or regularly demanding longer working hours.

Further to enforce the compliance of environmental management, contractors will be responsible and liable for safety of site equipment, labours and daily workers attending to the construction site and safety of citizens for each work site, as mandatory measures.

Occupational Health and Safety Monitoring

OHS compliance monitoring will carried out by designated E&S Expert every month. Contractor will provide compliance in initial report to Engineer in charge and thereafter submit a compliance report every 3 months. Following shall be covered as part of OHS monitoring:

- Health check-up records of workers, as applicable.
- Accident hot spots on transport route, if any
- Training and awareness of labour ï OHS, Emergency Management, Use of PPEs
- Identification of hazardous working locations and marking
- Emergency response procedure
- Availability of PPEs ï types, numbers
- Accident reporting

Communication and Consultation (Workers)

Workers consultation will be regular features. However, this aspect shall be as per consultation process defined under other plans and ESS4.

Training and Records

Contractor will provide training to all workers before start of work and thereafter every three months. He will maintain training records and share the details with E&S experts of the dam as part of his quarterly progress report. The training should cover the following:

- General awareness about the site, type of works to be carried out and risks involved
- Use of appropriate PPEs for different types of works including dust masks and ear muffs
- Following work instructions for hazardous/risky operations as marked on site
- How to act during emergency including basic rescue operations and accident reporting
- Location of first aid boxes and fire extinguishers and how to use them
- Handling of gas cylinders

Emergency Preparedness and Management

Emergency Preparedness and Management Plan shall be followed as given under ESS 4

Reference to World Bank Group –(WBG) Environmental Health and Safety (EHS) and Other Guidelines

The WBG Guidelines of Environmental Health and Safety (WBGEHS) provide detailed guidance note on health and safety requirement and good practices. The WBGEHS guidelines are intended to be used in conjunction with Indian legislation on OHS at construction sites and shall be referred by contractor and IAs while finalizing site specific contractorôs EHS management plan.

iv) COVID Considerations:

COVID considerations: Influx of Migrant Labour is likely as there will be a need to perform high skilled jobs which may not be available locally or even within the state. These are likely to come from other states or adjoining states or districts. Possibly 10-15 persons are required for highly skilled jobs. The remaining ï semi-skilled and unskilled labor will be sourced from within the district. Hence as per WBôs guidance note[70], for such workers, Contractor needs to:

Prepare detailed profile of Workforce as per table below:

Key work activities	**Schedule for such activities**	**Duration of contract**	**Rotation**	**Place of residence**		
				workers from community	Within local community	On site

At the time of labour engagement and start of work or anytime during the execution of work, any directives issued by government with respect to labour movement, labour stay at site, social distancing or any other restriction put in place to contain the spread of infectious disease such as COVID-19.

Actions by IA

i. **IA will monitor and ensure that contractor** will follow any restriction on movement or advise on distancing as issued by government due to COVID-19 or any other infectious disease during the period of construction. IA will request the details from the Contractor about the measures being taken to address the risks. This may include the following aspects as relevant
   a. Conducting pre-employment health checks
   b. controlling entry and exit from site/workplace
   c. General hygiene
   d. Cleaning and waste disposal
   e. Adjusting work practices

[70] ESF/SAFEGUARDS Interim Note: COVID-19 consideration in constructions/civil works projects

f. reviewing accommodation arrangements, to see if they are adequate and designed to reduce contact with the community
g. reviewing contract durations, to reduce the frequency of workers entering/exiting the site
h. rearranging work tasks or reducing numbers on the worksite to allow social/physical distancing, or rotating workers through a 24-hour schedule
i. providing appropriate forms of personal protective equipment (PPE)
j. putting in place alternatives to direct contact, like tele-medicine appointments and live stream of instructions.
k. Instances of spread of virus
l. Training and communication with workers
m. Communication and contact with community

ii. **Request the Contractor to convene regular meetings** with the project health and safety specialists and medical staff (and where appropriate the local health authorities), and to take their advice in designing and implementing the agreed measures.
iii. **A senior person** should be identified as a focal point to deal with COVID-19 issues e.g. work supervisor or a health and safety specialist
iv. **Request for coordination arrangements,** particularly at site where there are a number of contractors and therefore (in effect) different work forces *(PIU could request the main contractor to put in place a protocol for regular meetings of the different contractors)*
v. **Check with Contractors** on whether the workers are informed/encouraged to use the existing project grievance mechanism to report concerns relating to COVID-19

2.2.5 AGE OF EMPLOYMENT

The minimum age of employment for this project shall be 18 years and to ensure compliance, all employees will be required to produce aadhar card or any other valid proof of age. If any contractor employs a person under the age of 18 years, that contractor will not only be terminated by IA but also be reported to the authorities.

2.2.6 TERMS AND CONDITIONS

Terms and conditions for three types of workers are presented below:

i. The Direct Workers (Dam officials, government officials) are governed by their employment agreements with the Water Resources Department

ii. Contractors will also be required to comply with the most current Regulation of Wages for the Building and Construction Industry which is issued by the Government and reviewed on a regular basis. The Minimum Wage Act specifies the minimum wages, hours of work, overtime pay, leave entitlements, travelling and Subsistence Allowances and the issue of protective clothing. Before a contract is awarded, contractor is required to certify in writing that the wages, hour and conditions of work or persons to be

employed by him on the contract are not less favourable than those contained in the most current wages regulation issued by the Labour Commissioner. Where a contractor fails to comply with this requirement, the contract with the contractor may be withdrawn as an approved contractor upon recommendations of the Labour Commissioner.

In ensuring full compliance with the law in this regard, contractors will be required to furnish with copies of the labour license and/ or copies of contract of all its workforce. As a monitoring mechanism, a contractor shall not be entitled to any payment unless he has confirmed that all employment conditions of the contract are being complied with. The IA would intervene if the contractor defaults in the payment of wages due to any of its employees.

óCommunity Workersô is further detailed in following sections.

2.2.7 GRIEVANCE MECHANISM

The Grievance Mechanism for Workers will be organised as follows.

i. **Direct Workers (Project Officials):** The Executive Engineer, Dam Authority, will be responsible for providing guidance and advice on all worker related grievances and their redressal, in line with the state and national legislation and the LMP.

ii. **Contract Workers:** While the Contractor will have his own GRM, the IA (Water Resources Department will have oversight) and the overall responsibility for ensuring the establishment and implementing the GRM for project workers. In this regard, the Executive Engineer will be responsible to ensure that the Contractor has established and operationalised the contract workers grievance redress mechanism. In this, Contractor will be supported by Environment and Social nodal officers by IA designated for the purpose. S/he will also be responsible for tracking and resolving workers grievances. S/he shall maintain records where grievances and complaints, including minutes of discussions, recommendations and resolutions made, will be recorded.

COVID considerations: In COVID context, the nature of complaints may be particularly time-sensitive and sensitive in terms of confidentiality. Hence, Contractor should consider streamlined procedures to address specific worker grievances, which would allow workers to quickly report labor issues, such as a lack of PPE, lack of proper procedures or unreasonable overtime, and allow the project to respond and take necessary action.

iii. **Community Workers:** The Executive Engineer, Dam Authority, will be responsible for providing guidance and advice on all community worker related grievances with this LMP.

The designated Social Expert in SPMU will provide overall implementation and capacity building support on resolving all workers grievances and will support the Executive Engineer in this regard. S/HE will also include workers grievance status in the progress report. Grievances will continue to be received through established communication channels. Workers

will also be able to submit their grievances through the district Labour Department, whose contacts will be shared with all the contractors and worksites.

2.2.8 CONTRACTOR MANAGEMENT

IA will ensure that contractor monitor, keep records and report on terms and conditions related to labour management. The contractor must maintain records with evidence of all payments made, including social security benefits, pension contributions or other entitlements, as applicable based on workers engagement i.e.-fixed term contract, full-time, part-time or temporary. The application of this requirement will be proportionate to the activities and to the size of the contract, in a manner acceptable to CPMU and the World Bank:

Labour conditions: records of workers engaged under the Project, including contracts, registry of induction of workers including CoC, hours worked, remuneration and deductions (including overtime), collective bargaining agreements;

Safety: Reportable incidents and corresponding Root Cause Analysis (lost time incidents, medical treatment cases), first aid cases, high potential near misses, and remedial and preventive activities required (for example, revised job safety analysis, new or different equipment, skills training, and so forth).

Workers: number of workers, indication of origin (local and migrant), gender, age with evidence that no child labour is involved, and skill level (unskilled, skilled, supervisory, professional, management).

Training/induction: dates, number of trainees, and topics.

Details of any security risks: details of risks the contractor may be exposed to while performing its work; the threats may come from third parties external to the project. Worker grievances: details including occurrence date, grievance, and date submitted; actions taken and dates; resolution (if any) and date; and follow-up yet to be taken; grievances listed should include those received since the preceding report and those that were unresolved at the time of that report.

2.2.9 COMMUNITY WORKERS

All OHS related aspects shall be applicable to this category of workers also, if they are engaged.

2.3 RESOURCE EFFICIENCY AND POLLUTION PREVENTION (ESS3)

2.3.1 POLLUTION PREVENTION AND ENVIRONMENT QUALITY MANAGEMENT PLAN (PPEQMP)

Dam rehabilitation work in general can be categorised as civil work including paint work and hydro-mechanical work. requiring labour involvement for works, use of resources such as raw

material, water and power during construction, pollution generation from storage and handling of material, generation of waste, use of paints and other chemicals for construction activities and generation of hazardous waste, transportation of raw material, etc. As all the proposed structural interventions are within the damsô premises, no adverse impacts are envisaged on communities including on the disadvantaged or vulnerable people.

Resource Efficiency, Pollution Prevention and Management plan is prepared to address potential risks identified with respect to resource use and pollution generation from civil, hydro-mechanical and painting work and also from labour camps and colonies.

2.3.2 OVERVIEW OF PPEQMP

i. Water Management

The proposed intervention activities are not expected to impact water resources as the proposed interventions are neither crossing, altering or disturbing drainages nor impacting ground water resource in any form. Use of resources such as water and power will be optimized before start of work.

Construction related impacts and risks for water quality include:

- Accidental release of fuel or chemicals and contamination from poor waste management practices can affect surface and groundwater; although quantum of waste is expected to be small.
- Fuel/oil leakage from construction machinery working near water bodies
- Construction work along river bank
- Generation of sanitary wastes from labour colony and construction sites finding way to water bodies

Pollution prevention and control measures to avoid surface water pollution shall include:

- Labour camp will have adequate sanitation arrangement in terms of mobile/fixed toilet with arrangement of sewage collection and disposal. No wastewater from the camp/work force site shall be discharged directly without any treatment in to any surface water channels or drain, which eventually joins surface water bodies.
- The oil/lube storage shall be under roofed areas with impermeable cement concrete surfaces and provided with separate drainage system with oil separators. No discharge from oil/lube storage areas shall be directly discharged in to any open surface water channel/ streams.
- No construction debris and/or spills of construction materials are dumped on to stream waterway.
- Construction work along river bank shall be done in lean season when surface water level has receded and clear construction area is available.
- Activities like Rip-rap replacement and work on upstream side of dam (reservoir side) will be taken up only when the water level is low and clear work area is available.

Adequate protection needs to be provided to avoid spillage of chemicals/construction material in reservoir.

ii. Air Quality Management

Construction activities can give rise to dust emissions if not effectively managed and have the potential to affect receptors near to the main construction sites due to dust generated from demolition, excavation, operation of construction equipment and machinery, increased movement of vehicles, onto the local road network. Earth works will result in exposed areas of soil which will potentially generate dust when the weather is windy. The level and distribution of dust emissions varies according to the duration and location of activity, weather conditions, and the effectiveness of suppression measures.

Gaseous emission during construction will be from machinery, equipment and vehicles used for material transportation. The operation of vehicles and equipment will result in emissions of carbon monoxide, sulphur dioxide, and oxides of nitrogen. In particular, all commercial vehicle driven with diesel fuel is often used in India. Impact is expected to be localised. Keeping in view the quantum of work and requirement of raw material, only marginal increase in number of vehicles is expected, therefore, emission on village road due to vehicular movement will not be significant.

As the project is presently operational and the interventions are not going to alter the project operation in any manner, no operational phase impacts are envisaged on ambient air quality.

Pollution prevention and control measures to avoid air pollution shall include:

Among the air pollutants, dust levels in term of $PM_{2.5}$ and PM_{10}, is the most significant. In order to prevent and control the dust levels, the following measures are to be strictly adhered to:

- The contractor/transporter shall carry valid PUC (Pollution Under Control) certificate and only compliant vehicles shall be deployed during construction.
- The vehicles and equipment used during construction should be we well maintained, to ensure minimum emissions. Engineer in Charge will carry out physical inspection to ensure compliance.
- The contractor shall provide wind barrier, if required, depending on most prevailing wind direction and presence of sensitive receptors at downwind side, at perimeter of construction site to arrest or blowing of suspended particle.
- Regular sprinkling of the water will be done on construction sites for dust suppression if there is potential of dust emission from storage of handling of loose material.
- If power connection is not available, Mobile DG sets may be used for lighting only during construction phase and they should meet emission and noise standards as per guidelines/standards issued by CPCB.
- All the construction workers and other staff, who get directly exposed to dust, should necessarily be provided with dust masks.

iii. Noise and Vibration Control

Sources of noise will be the vehicles and equipment for construction at the project sites. Due to construction activity in the area, noise levels will increase during the period of construction, however, they will remain limited to the work area mainly where construction activity will progress.

Impact of noise generation due to operation of construction machines and equipment is the exposure of workers operating these machines and other who are working in the surrounding. Such impacts can become significant if they are exposed to high noise for long hours continuously.

Pollution prevention and control measures to avoid Noise pollution shall include:

- DG sets, if required, will have a valid Type Approval Certificate and Conformity of Production certificate as per CPCB guidelines.
- All the construction equipment will be required to use available noise suppression devices and properly maintained mufflers.
- Workers in high noise area, will be provided with ear muffs.. Workers exposure (time duration) to high noise will also be controlled.
- Minimize the use of noise producing equipment during night hours to avoid the disturbance to locals and wild animals of surrounding area.
- Vehicles to be equipped with mufflers recommended by the vehicle manufacturer.
- Movement of vehicles on village roads especially heavy vehicles for transportation of construction material, equipment, etc. shall be done during day time only.

iv. Waste Management from Hydro-mechanical works

Project interventions include hydro-mechanical work such as repair/replacement of hoists and ropes, repair and general maintenance and up-keeping of gates, etc. These activities will generate waste in terms of replaced parts, packaging material, empty containers, use and disposal of oil & grease, iron scrap, etc. There will be a mix of hazardous and non-hazardous wastes. It is important to have a plan ready for disposal of such wastes before start of the activity.

Pollution prevention and control measures with respect to waste management:Project engineer needs to identify all the waste generated from hydro-mechanical work including replaced parts with estimated quantities and categorisation as hazardous and non-hazardous waste. Storage and disposal of removed parts need to be planned by Executive Engineer; separately for hazardous waste which will be given to authorised vendors only.

v. Debris Management

Rehabilitation work will generate construction debris due to repair and demolition works such as removal and fresh laying of rip-raps, removal of top layer during road repairs, operation of construction equipments and machinery and waste generation thereof, etc.

Pollution prevention and control measures in respect of Debris management shall include:

- Debris disposal site shall be identified by contractor and concerned Executive Engineer together and necessarily avoid natural water courses.
- While identifying such locations, endeavour would be to find low lying areas nearby so as to avoid effort of transporting debris.
- Area on the course of natural drainage should be avoided.
- The construction debris from all operational areas shall be regularly scavenged and disposed off at identified disposal sites only.
- No dump site shall be located in forest area.
- No dump site shall be located on agricultural area.
- The Contractor shall educate his workforce on issues related to disposal of waste.
- The debris disposal sites have to be suitably rehabilitated by leveling and restoring to original conditions and slopes stabilized.
- If required, grass and local shrubs should be planted to rehabilitate the site.

2.3.3 HOW WATER AND OTHER RESOURCE USE WILL BE PLANNED

Resource planning will be done by contractor in consultation with engineer in charge. After award, the contractor will make an estimate of the raw material requirement, sources for procurement and transportation route. Contractor will discuss the plan with Engineer in Charge at site and get approval.

Material to be procured from quarry/borrow area, shall be identified by contractor along with source. Approval status will be submitted to engineer in charge for consent.

Requirement of water and power at various locations for construction work and labour camp shall be established by contractor and discussed with Engineer in charge. Locations, where DG power is to be used, shall be identified along with location of DG set and its noise and emission impacts on labour and community. Mitigation measures such as ear muffs for labour and sound barrier for community, if required shall be established.

2.3.4 ENVIRONMENTAL QUALITY MONITORING PLAN AND PROTOCOLS

This being rehabilitation work limited to dam area only with localised impacts which can be managed by implementing standard ESMP, environment quality monitoring is not required. However, keeping in view that some of the dams are located in proximity to protected areas, environmental quality monitoring will be carried out at such dams only. These requirements are indicative and can be altered and modified as per project components and activities proposed.

Environment Quality monitoring requirements for dam located in proximity to protected areas (where applicability of ESS6 is identified during ESDD) are tabulated below:

Activity	Parameters	Locations	Frequency	Responsibility
Ambient Air Quality	$PM_{2.5}$, PM_{10} and SO_2 for 24 hours	At two major location of rehabilitation works to be identified by E&S Expert	Once before start of construction, once during the construction period and one at end of rehabilitation work	Contractor through NABL accredited Lab
Sound Levels	dB(A) levels ï day and night equivalents ï hourly reading during day and night time for 24 hrs	At two major location of rehabilitation works to be identified by E&S Expert	Once before start of construction, once during the construction period and one at end of rehabilitation	Contractor through NABL accredited Lab
Wastewater discharge	Physical inspection to ensure wastewater from rehabilitation work is not being disposed off in river	All rehabilitation worksites using water	Once every month	Engineer in charge
Debris handling and disposal	Physical inspection to ensure debris from rehabilitation work is being securely disposed off at identified and approved location	All rehabilitation worksites generating debris	Once every month	Engineer in charge
Storage and disposal of hazardous waste	Physical inspection to ensure hazardous waste is being segregated and securely disposed off to authorised vendors	All rehabilitation worksites generating hazardous wastes	Once every month	Engineer in charge

2.3.5 REPORTING

Contractor will prepare a Quarterly Progress report (QPR) and submit to Engineer in Charge. The report will cover the compliance status of the Project with the ESMP in their scope and shall include Debris Management, Resource Conservation and Pollution Prevention Plan implementation. The Engineer in Charge through E&S expert at SPMU will include its own monthly inspection report and submit the report to SPMU/IA every quarter.

2.4 COMMUNITY HEALTH AND SAFETY (ESS4)

2.4.1 OVERVIEW

Dam rehabilitation work, although limited to dam complex, can increase community exposure to risk and impacts. ESS4 addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of SPMU/IA to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable. Occupational health and safety (OHS) requirements for project workers are set out in ESS2, and measures to avoid or minimize impacts on human health and the environment due to existing or potential pollution are set out in ESS3. ESDD has identified that there will not be any direct risks and impacts on communities due to proposed rehabilitation work including those who are vulnerable. Following sections propose mitigation measures in accordance with mitigation hierarchy to mitigate any indirect impact on communities.

2.4.2 HAZARD IDENTIFICATION

Implementations of sub-project activities pose minimum risk to community health and safety risks as the proposed rehabilitation work will be limited to dam area only. However, transportation of material; setting up of labour camp; influx of workers, though small in number and generally skilled workers only; pollution generation from rehabilitation work; may have indirect impact on community as identified in the ESDD report. The risks are summarized below:

Traffic and Road Safety ï Sub-project activities are largely structural interventions categorised as civil works and hydro-mechanical works. This would require transportation of construction material, equipment and machinery, instrumentation, parts and accessories to the dam. In addition, there will be movement of workers (direct and contract workers) to and from site. Transportation of man and material will increase traffic on the village roads during the period of construction leading to increased risk of accidents, spillages, noise and air emissions on generally deserted village roads. Keeping in view the nature of proposed rehabilitation work, only few vehicles will be added per day, therefore this activity do not pose any risk to community. However drivers will be advised to limit the vehicle speed to 30 KM/hr in village areas.

Community Exposure to Health Issues ï The sub-project activities will require contract workers ï skilled and unskilled. It is expected that unskilled workers will be available locally; however, a small number of skilled workforce will come from outside the area and expected to stay at site. Influx of workers and setting up of temporary labour camp interfacing with community may increase the health risk of community. Migrant workers can be potential carriers of new infectious diseases not known in the area and impact the community health. Labour camp in vicinity of community may pose risk of unplanned waste and waste water discharge..

Management and Safety of Hazardous Material ï Sub-project civil and hydro-mechanical interventions may require use of hazardous material in limited quantities such as fuels, flammable gases e.g. as acetylene and LPG, etc. Transportation, storage and handling of these hazardous materials requiring careful handling and disposal to minimise risk of public exposure.

2.4.3 HAZARD RISK MANAGEMENT

Following measures are proposed to minimise the community health and safety risks due to sub-project activities:

Traffic and Road Safety

- Transportation of lose construction material will be through covered vehicles only
- PUC for all transport vehicles will made compulsory
- No large scale movement of vehicles at night time
- Drivers will be issued instructions to follow signage and safety norms

Community Exposure to Health Issues

- Health and hygiene requirement of the labour camp will be maintained though out the project cycle ï potable water, power, community/individual kitchen, waste management
- Separate toilets for male and female workers staying in labour camp connected to septic tanks/adequate waste collection and disposal arrangement
- Waste management system will be implemented in labour camp by providing adequate number of bins and collection system to avoid littering of waste
- Labour will be sensitized to follow good health and hygiene practices for their as well communities health

Incident Management, OHS monitoring, training:

Labour interaction with communities, Incident prevention and management, OHS monitoring, Health and Hygiene, training are discussed as part of labour management Plan ESS2.

2.4.4 COMMUNICATION AND CONSULTATION (WORKERS & COMMUNITY)

Stakeholder consultation was carried out involving direct workers and community in the month of January 2020, during ESDD preparation. Direct workers are well aware of rehabilitation work and confirmed these activities remain limited to dam complex only. Community participants welcomed the proposed interventions relating to dam safety and confirmed that there are no pending issues regarding dam construction related resettlement. The participants explicitly mentioned that the dam is their lifeline and strengthening works will help their long term livelihood and therefore welcomed such information. Participants have expressed that they do not have any grievances and as such no grievances were ever reported from their communities/neighbourhoods. Consultations will be continued during various phases of the project by IA.

2.4.5 EMERGENCY MANAGEMENT PLAN

Emergency Management Plan should be displayed prominently at work site in local language for ease of understanding of workers and staff. It should contain following information:

1. Name, Designation & Contact Numbers of the site supervisor and alternate to be informed in case of any emergency;
2. Contact details of nearby hospitals, fire department and police department
3. Location of fire extinguishers, first aid boxes, emergency alarm and assembly points
4. Potential Emergencies Situations such as fire, fall, electric shock, etc. & response measures such as use of fire extinguishers, rescue procedures, switching off main power (can be made pictorially).

Responsibility of site supervisor (or his alternate in case he is not present) will be clearly defined including:

1. Assess the level of emergency
2. Providing first aid/organize rescue, as per the emergency situation
3. Assess the need for hospitalization and call ambulance
4. Evacuate the area/limit entry after assessing type of emergency
5. Assess emergency situation and its potential of expanding and inform IA and first responders, as required (fire, police and medical)
6. Prepare accident report ï root cause, corrective action and preventive action

2.4.6 EMERGENCY CONTROL CENTRE

Control room at dam serves as Emergency Control Centre, which has basic communication facilities. The same will be upgraded to serve as emergency control centre with following facilities:

- Display of the name of site emergency controller and all relevant phone numbers ï project personnel, police, fire, medical, district administration
- Phone connection ï landline/mobile (2 numbers)
- Site layout diagram with entry and exit routes / Assembly points
- Two numbers of first-aid boxes with prescribed first-aid medicines
- Two numbers of blankets
- Drinking water
- Two numbers of rescue ropes
- Two numbers of high beam torches
- Fire extinguisher of DCP and CO2 type.

2.4.7 REFERENCE TO IFC ENVIRONMENTAL HEALTH AND SAFETY GUIDELINES

The IFC guidelines of environmental health and safety provide detailed guidance note on health and safety requirement and good practices. This manual shall guide contractor and IAs while finalizing site specific contractorôs EHS management plan.

2.5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS5)

Based on the implementation experience of DRIP I, applicability of ESS5 seems to be very rare; and it has not been identified in any of the ESDDs completed so far for Low to Moderate Risk category projects. But bringing in the standard ESMP document for Low to Moderate Risk Category projects with an explicit objective that in case during implementation stage of rehabilitation activities especially in very few exceptional cases, dam owners can address any relevant issues related to ESS5. This template shall be used on need basis by dam owners.

Construction stage Impacts: These could include:

- Temporary loss of business
- Land and assets temporarily impacted during construction
- Minor impacts on community resources/Common property resources
- Temporary ï short duration or prolonged disruption to services such as water supply, power
- Disruption to traffic movement leading to time delays;

Assessment of Impacts – Nature and Extent

Details on impacts based on enumeration of impacts (Census & Socio-economic survey) is as follows

Table 2.1 – Impact by Activity

S.No.	Type of rehabilitation activity	Type of Impact temporary loss of business/ impact on common property Impact on structure	Number of Impacted Assets	Number of Impacted Persons

Table 2.2 Usages of structure

Number of				
Residential	Commercial	Residential cum commercial	Others (cattle shed, shed etc)	Total

Table 2.3 Typology of affected structures

Number of			
Pucca /Permanent	Semi Pucca	Kutcha	Total

Table 2.4 Type of affected CPR

Number of					
School	**Religious structure**	**Bus Shelter**	**Hand pump**	**Others (ATM Toilet, Compound wall etc**	**Total**

Table 2.5 – Extent of Impacts on structures/Common properties

Name of Structure /CPR	Location	Name of owner	Impact on Structure 1. 1 to10%, 2. 10%to20%, 3. 21%to50%, 4. Above 50%

Table 2.6 Loss of Income (due to loss of temporary access, damage to crops/ trees)

Number of Persons/entities impacted due to			
Loss of access to Shop /Kiosk	**Damage to crop**	**Damage to Trees**	**Loss of income**
Estimated Loss (Amount)			
Loss of access to Shop /Kiosk	**Damage to crop**	**Damage to Trees**	**Loss of income**

Brief Socio-Economic Profile of Impacted Persons/Households: Based on the rapid census and socio-economic survey and consultations, details are given below:

Item	Description	Nos.
Population	Male	
	Female	
	Total	
Religious Group	Hindu	
	Muslim	
	Total	
Social Group	General	
	BC	
	SC	
	ST	
	Total	
Education level of HH	Illiterate	
	New-literate	
	Primary	
	Middle	
	High school	

Item	Description	Nos.
	Intermediate	
	Graduate	
	Post graduate	
	Professional	
	Others	
	Total	
Occupation of HH	Agriculture	
	Trade/Business	
	Petty shop keeping	
	Agri labour	
	Non-Agri labour	
	HH Industries/Artisan activity	
	Service	
	Professional	
	Self employed	
Annual Income	Retired	
	Unemployed	
	Others	
	Total	
	<75000	
	75001 - 1lakh	
	1lakh - 2.5lakh	
	2.5lakh - 5lakh	
	Total	

Entitlement Matrix: Such impacts would be addressed through the relevant provisions outlined in Resettlement Policy Framework (refer to Annexure 10 of ESMF for full details)

Sl. No.	Impact	Entitled Unit	Entitlement Details
Loss of Livelihood			
1	Temporary loss of business	Business owners	Compensation for temporary loss of income due to loss of access shall be determined as per data on income collected during SIA, and paid commensurate to the period of loss of income **(to be paid by IA)**
Temporary Impact During Construction			
3	Land and assets temporarily impacted during construction	Owners of land and assets	**Temporary losses incurred during construction will be paid by the contractor as determined below:** iii. Damaged structure: Compensation will be estimated as per latest Basic Schedule of Rates (BSR) of Public Works Department, without depreciation iv. Crops and Trees: Compensation for crops & tree damages will be estimated as per Section 29(3) of RFCTLARR Act[71]. All temporary use of land outside ROW, would be

Sl. No.	Impact	Entitled Unit	Entitlement Details
			done based on written / prior approval of landowner and contractor
Loss of Community Infrastructure/Common Property Resources			
2	Structures & other resources (e.g. land, water, access to structures etc.) within the Corridor of Impact (CoI)	Affected communities and groups	Reconstruction of community structure and common property resources, will be done in consultation with community **(costs to be borne by IA)**

Budget for ARAP implementation

Budget for RAP Implementation					
S.No	**Cost Items**	**Unit**	**Rate-Rs**	**Quantity (in sq. mtrs)**	**Amount (in Rs.)**
Compensation for affected part of structure at Replacement Cost					
1	Pucca				
2	Semi Pucca				
3	Kutcha				
Compensation for temporary loss of income (as calculated based on SIA)					
1	Kutcha				
Cost of reconstruction of impacted Common Property					
1	CPR Rehabilitation /Reconstruction Cost				
	Total				

2.6 BIODIVERSITY CONSERVATION MANAGEMENT PLAN (ESS6)

"Protected Area" means a National Park, a sanctuary, a conservation reserve or a community reserve notified under Wildlife Protection Act. Any new or expansion project within or in proximity to protected area, will have to undergo wildlife Clearance, however, rehabilitation work at existing dams in proximity to protected area do not require any clearance/compliances.

WB ESS6, "Biodiversity Conservation and Sustainable Management of Living Natural Resources" requires assessing its applicability to a sub-project during ESDD, keeping in view the potential impact on biodiversity or habitat either positively or negatively, directly or indirectly.

Keeping the above in view, Biodiversity Conservation and Management Plan will be prepared for only those sub-projects which are in close proximity to any of the protected areas, to mitigate potential indirect impacts. The requirement is established during ESDD.

For illustration, data of Bisalpur dam is used here, which can be customised to individual sub-project requirement where applicability of ESS6 is identified during ESDD.

2.6.1 OVERVIEW OF BIODIVERSITY CONSERVATION AND MANAGEMENT PLAN (BCMP)

Conservation Reserves in India are declared for the purpose of protecting landscapes, seascapes, flora and fauna and their habitat. The rights of people living inside a Conservation Reserve are not affected.

Bisalpur conservation reserve lies in the vicinity of Bisalpur Dam. Bisalpur Conservation Reserve was declared by Government of Rajasthan by publishing notice in Rajasthan gazetted on October 13, 2008. The notification defines the boundary of the conservation reserve in schedule I and II covering an area of 36.67 sq. km and 11.64 sq. km respectively i.e. total area under conservation reserve is 48.31 sq km. The notification exempt from its purview, the diverted forest area for Bisalpur dam, Bisalpur left bank canal, forest area under submergence, revenue land of Banas river, community places, roads, temples, religious rest houses (dharmshala), electrical lines, water lines, dam, canals, etc.

The project is not proposing to undertake any work in Conservation Reserves; no part of the conservation reserves will be used for transportation of material, waste disposal or labour accommodation, therefore, no direct impacts are envisaged. There is a potential risk of indirect impacts, on conservation reserve as proposed rehabilitation work will involve outside labour, though small in number, to stay and work in proximity to conservation reserve. To minimise such risk, Biodiversity Conservation Plan is prepared.

2.6.2 SUB PROJECT DESCRIPTION

All rehabilitation work proposed for Bisalpur dam is limited to dam complex and none of the activities will be taken outside the dam area. The work proposed is of civil and hydro-mechanical work on upstream and downstream face of the dam.

Civil work will be carried out by contractor(s) as these are labour intensive activities and would be completed over a period of 3 years. Typically, civil work on upstream body of dam will be planned when the reservoir level is low i.e. during lean/pre-monsoon season (typically January to April). For downstream work such as repair of training walls, extension of retaining walls, repair of spillway glacis, etc. will be done when the water level is not increasing and the requirement of gate opening will not be envisaged for few months. This will be done typically during post monsoon season when water level in reservoir is continuously dropping. These activities can be undertaken during December to April.

Labour requirement will vary during the three years construction period; the peak labour is expected to be 25-30 persons. The project has established a labour colony during the dam construction, which is located at about 3 Km from the dam. Some of the dam workers are residing their however, there is enough accommodation available to house up to 50 workers. The colony has temporary houses, water and power connection, septic tank connection, road connectivity and green areas. There is a middle school as part of the colony and also a police

station nearby. Project has committed to house all the labour in these houses. The colony is just outside the boundary of conservation area.

2.6.3 INVENTORY OF TERRESTRIAL AND AQUATIC FLORA FAUNA

A detailed inventory is included in ESDD Report

2.6.4 LIKELY IMPACT OF PROJECT ACTIVITIES ON BIODIVERSITY AREAS

As discussed in ESDD report, the proposed rehabilitation work will not impact or violate any part of conservation reserve. All the proposed activities will remain limited to dam complex, which is outside the conservation reserve. There is only small possibility of indirect impacts due to labour camp in proximity to Conservation Reserve boundary. Labour could indulge in cutting of trees for cooking and space heating, hunting of wildlife for food and game, etc. and may venture into conservation area. To minimise such risks, Biodiversity Conservation Management Plan is prepared to ensure no net loss to biodiversity.

2.6.5 REGULATORY APPLICABILITY AND REQUIREMENTS

Conservation reserves and community reserves in India are terms denoting protected areas of India which typically act as buffer zones to or connectors and migration corridors between established national parks, wildlife sanctuaries and reserved and protected forests of India. Such areas are designated as conservation areas if they are uninhabited and completely owned by the Government of India but used for subsistence by communities and community areas if part of the lands is privately owned. These protected area categories were first introduced in the Wildlife (Protection) Amendment Act of 2002 ī the amendment to the Wildlife Protection Act of 1972. These categories were added because of reduced protection in and around existing or proposed protected areas due to private ownership of land, and land use.

2.6.6 CONSERVATION AND MANAGEMENT PLAN

Following measures are proposed for conservation of biodiversity:

- Labour will be sensitized to ensure that they do not indulge in tree cutting or hunting.
- Any access/short cut, linking work sites and labour camp through PAwill be blocked/fenced
- Project authorities/contractor will be bound by rules and regulation of Wildlife (Protection) Act, 1972 of India and any other rule and guidelines, stipulated by the state Government.
- No dumping site will be identified in the protected area (this is not permitted by law) and no waste dumping (even temporary) will be permitted in that area.
- The project staff and workforce will be appropriately made aware about the importance of biodiversity and shall be advised not to indulge in any illegal activity
- In case of any violation, strict action and penalties would be levied in accordance with the law by appropriate authority

2.6.7 MONITORING, COMPLIANCE REPORTING AND BUDGET

Physical inspection by Engineer in Charge, before start of work and thereafter every month to check:

- Location of labour camp/colony with respect to conservation area and expected locations of breach
- Route of labour movement from camp/Colony to work site and back and any possible interference with the protected area (block any short cuts/access)
- Review of complaints received, if any, reporting labour movement in the protected area and take corrective action
- Review of labour training content and record to ensure labour is sensitized to the need of biodiversity conservation
- Preparing quarterly compliance report

Budget for biodiversity conservation, which largely involve inspection and monitoring by E&S experts, will be part of overall ESMP implementation budget.

2.7 TRIBAL DEVELOPMENT PLAN (ESS7)

2.7.1 TDP TO A SUB-PROJECT

Rehabilitation work proposed at sub-projects will be limited to dam area and no structural interventions are proposed outside, therefore, no direct impact on local community is assessed as part of ESDDs. The project activities do not lead to any direct or indirect impacts on local communities due to structural interventions. Only non-structural interventions such as preparation and implementation of EAP and early flood warning systems will involve engaging with variety of stakeholders including tribal groups, living in the vicinity of the dam and would need to be consulted and informed in culturally appropriate approach ï language, techniques that are familiar to them.

Bank ESF (ESS 7 on Tribals) is applicable if:

1. there is a project /activities in Schedule V or VI areas
2. In other areas outside of schedule areas, there are tribal groups who meet the four characteristics as given in para 8 of ESS 7
3. It does not apply if there are tribals in the project area, but such groups are mainstreamed into the general society e.g. there are tribals at Hirakud Dam too but over the period of time a whole township has come in the place and there are all kinds of peoples - tribals and non-tribals living and hence no distinguishing feature exists between them.

Keeping the above in view, TDP will be prepared for only those sub-projects where applicability is established during ESDD.

For illustration, data of Mahi Bajaj Sagar dam is used here, which can be customised to individual sub-project requirement where applicability of ESS7 is identified during ESDD.

2.7.2 PROPOSED PROJECT ACTIONS IN THE AREA

Rehabilitation work proposed at Mahi Bajaj Sagar will be limited to dam area and no structural interventions are proposed outside, therefore, no direct impact on local community is assessed as part of ESDD. Risk categories of all the proposed activities have been assessed, as Low to Moderate and Standard ESMP updated with project specific activities will be applicable. The project activities do not lead to any direct or indirect impacts on fishing and related livelihoods

Mahi Bajaj Sagar Dam, in Banswara district is located in Schedule V area and therefore, this Tribal Development Plan is prepared to help to avoid any indirect impact on tribal population especially during the EAP implementation where downstream population will be engaged during information dissemination.

2.7.3 TRIBAL GROUPS IN THE AREA

Mahi Bajaj Sagar dam is located in Banswara district, which is declared Tribal Area as per Scheduled V Areas of Rajasthan. The district is predominantly inhabited by tribals mainly Bhils, Meenas, Damor, Charpotas, Ninamas etc. Bhils are the largest tribe in Rajasthan and are concentrated in Banswara district in large numbers. The Bhils were originally food gatherers, however, with the passage of time; they have taken up small-scale agriculture, city residence and industry employment. The Meenas (Minas) is derived from óMeenô, meaning Fish in Sanskrit. The Meenas are spread across the geography of Rajasthan. The Indo-Aryan language, Vagri is their mother tong and they are convergent with Gujarati and Mewari. Damors are mainly cultivators and manual laborers.

2.7.4 PREVIOUS CONSULTATIONS

A stakeholder consultation meeting was conducted at dam on 18/01/2020. It was attended by permanent staff of the borrower (WRD) working at dam, workers from nearby villages and locals. Following is the outcome of the stakeholder consultation meeting:

1. Agriculture is still the main occupation of people around the dam
2. The counterpart staff is well aware of the interventions proposed in the PST and the execution plan. The counterpart staff requires awareness/operational training on ESF and related compliances prior to procurement process.
3. The participants have affirmatively communicated that they are aware of the proposed works being taken up with WB support
4. The participants informed that the dam is their lifeline and works to strengthen will only benefit them and their next generation by providing water supply for both irrigation and drinking as well as power.
5. It is learnt that around 100 boats operate in the dam for fishing. The tribal fishermen collect the fish and sell to the contractors at a designated rate by the government. This arrangement is made to protect the tribal fishermen from possible exploitation and assure

regular income to locals tribal population. The proposed interventions do not interfere either directly or indirectly and no disruptions are anticipated.

6. The boundary fencing component will not be obstructing access to facilities/ livelihoods of the local communities.
7. The participants stated that no accidents/ disaster related incidents ever took place in their know-how.
8. The link road from colony circle to "0" chain rest house Mahi Dam is also used by local communities. Renovation of the road is welcomed by them.

2.7.5 SOCIAL IMPACTS, IF ANY

Positive Impacts: The tribal households will be indirectly and positively benefited by the dam safety interventions proposed for each sub-project Dam as these will help improve the overall safety of the dams.

Potential adverse impacts:. None

These activities in no way cause restriction on access to land or use of resources by local communities and there is no economic displacement envisaged due to the sub-project. Only non-structural interventions such as preparation and implementation of EAP and early flood warning systems will involve engaging with variety of stakeholders including tribal groups, living in the vicinity of the dam and would need to be consulted and informed in culturally appropriate approach ï language, techniques that are familiar to them.

2.7.6 MEASURES TO AVOID, MINIMIZE IMPACTS, IF ANY

As the structural interventions will not lead to any adverse impacts, no specific mitigation measures are required. However, in context of non-structural measures, implementation of EAP and early flood warning system will be shared in meetings and informed in language/techniques which are conversant to them.

2.7.7 BASELINE DETAILS

As per Census Data, 2011; Banswara district has a population of 17,97,485 out of which 13,72,999 persons are ST (76.38%). Distribution of ST population across CD Blocks and between rural and urban area is tabulated below.

PRIMARY CENSUS ABSTRACT_ BANSWARA FOR ST POPULATION					
District/CD Block/ Town	**Total/Rural/Urban**	**No. of Households with ST as Head**	**Total Population**		
			Persons	**Male**	**Female**
Banswara - District	Total	2,76,926	13,72,999	6,90,476	6,82,523
	Rural	2,73,836	13,58,208	6,83,104	6,75,104
	Urban	3,090	14,791	7,372	7,419

PRIMARY CENSUS ABSTRACT_ BANSWARA FOR ST POPULATION					
District/CD Block/ Town	**Total/Rural/Urban**	**No. of Households with ST as Head**	**Total Population**		
			Persons	**Male**	**Female**
Ghatol	Total	49,783	2,31,331	1,15,785	1,15,546
	Rural	49,783	2,31,331	1,15,785	1,15,546
	Urban	0	0	0	0
Garhi	Total	34,591	1,73,066	86,889	86,177
	Rural	33,940	1,69,700	85,231	84,469
	Urban	651	3,366	1,658	1,708
Banswara	Total	42,047	2,10,377	1,05,368	1,05,009
	Rural	42,047	2,10,377	1,05,368	1,05,009
	Urban	0	0	0	0
ChhotiSarvan	Total	17,855	86,568	44,076	42,492
	Rural	17,845	86,534	44,062	42,472
	Urban	10	34	14	20
Anandpuri	Total	27,232	1,34,931	68,277	66,654
	Rural	27,232	1,34,931	68,277	66,654
	Urban	0	0	0	0
Bagidora	Total	36,162	1,84,032	92,847	91,185
	Rural	36,162	1,84,032	92,847	91,185
	Urban	0	0	0	0
Kushalgarh	Total	34,633	1,78,025	89,327	88,698
	Rural	34,633	1,78,025	89,327	88,698
	Urban	0	0	0	0
Sajjangarh	Total	32,194	1,63,278	82,207	81,071
	Rural	32,194	1,63,278	82,207	81,071
	Urban	0	0	0	0
URBAN					
Garhi (CT)	Urban	302	1,609	801	808
Partapur (CT)	Urban	349	1757	857	900
Banswara (M + OG)	Urban	2,163	10,057	5,032	5,025
Kushalgarh (M)	Urban	276	1,368	682	686

Main Occupational Categories in the district/project area are:

Cultivation - This is the predominant form of employment across the district/region. The economy of Banswara district is mainly dependent on agriculture as 81.4 percent workers in the district are either cultivators or agricultural labourers. The main occupation of these tribal people is agriculture.

Animal Husbandry - Livestock is another important source of income and means of livelihood for a large number of families in the district/region. Camels are mainly useful in cultivation which is being used for pouching and transportation of agricultural produce.

Fishery - The State Department implements scheme on ólivelihood modelô, which is a ózero revenueô model, for the upliftment of tribal fishermen in three reservoirs namely Jaisamand (Udaipur), Mahi Bajaj Sagar (Banswara) and Kadana Backwater (Dungarpur). As per the model, the lift contract has been given to the highest bidder. One of the important conditions is to transfer whole fish catch price to tribal fisherman and these fish catching rates are highest in the country. A total of about 7,193 fishermen of 56 fishermen cooperative societies are being benefitted under this model and the earning of tribal fishermen working on regular basis has increased manifold.

Industry Workers - Banswara, is a backward industrial district in comparison to other districts of the state. There are a few Micro & Small Industries where tribals work as labour. A large number of tribals migrate to other states to work as labour.

2.7.8 BRIEF SUMMARY OF TRIBAL WELFARE PROGRAMS IN THE STATE/PROJECT AREA

There are several central and state sponsored schemes for the welfare of tribal population. Some of the major state sponsored programmes/schemes for the tribal people are:

- Anupriti Yojana- The scheme envisages financial assistance to the candidates of the tribal community qualifying in Indian Civil Services/State Civil Services Examinations & students those getting admission in National level institutions like IIT, IIM, NIT, AIIMS, NLU etc. & State Government medical/engineering colleges.
- Incentive on Remarriage of Widows- With a view to encourage widowôs remarriage, the state government has introduced a scheme to give a grant of Rs. 15000 to the widows as widow pension or entitled to widow pension on their remarriage.
- MukhyamantriSamman Widow Pension Yojana- Assistance of 500 per month for Widow/Parityakatya/Talakshuda women between 18 to 75 years and 750 per month for persons who are 75 years and above is provided by the state government.
- MukhyamantriSamman Old Age Pension Yojana- Under the scheme assistance of 500 per month is provided for females from 55 years to below 75 years and male from 58 years to below 75 years, and assistance of 750 per month is provided for persons who are 75 years and above by the state government.
- MukhyamantriSamman Disable Pension Yojana- Assistance of 250 per month for Specially abled persons age below 8 year and 500 per month for persons age from 8 year and below 75 years and 750 per month for persons age 75 years and above is provided by the state Government.

Some of the important centrally sponsored welfare schemes for tribal people in the state/area are:

- Protection of Civil Rights and Prevention of Atrocities- The state government has been providing financial assistance to the victims of SC/ST persons in 22 different categories

under rule 12 (4) of the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Rules 1995. It is a Centrally Sponsored Scheme shared between state and centre according to funding pattern of the scheme i.e. 50:50 shares is born by the State government and the Central government.

- Post Metric Scholarship Scheme for ST- It is a Centrally Sponsored Scheme, shared between the Centre and the State as per prescribed funding pattern of the scheme. The scheme envisages that entire tuition fees and maintenance allowance will be provided to the ST students with family income up to 2.50 lakh. The rate of maintenance allowance ranges from 230 to 1200 per month depending upon the course of study and nature of student i.e. day scholar or hosteller.
- Constructions of Hostels for Scheduled Tribes- It is a CSS Scheme, shared between the state and the centre according to the funding pattern of the scheme i.e. 50:50 share for boys hostels and 100 per cent share is born by the central government for girlôs hostels.

2.7.9 FPIC

ESS7, sets out the requirement of obtaining Free, Prior, and Informed Consent (FPIC) of affected Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities in the three circumstances viz.

(a) have adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation;

(b) cause relocation of Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communities from land and natural resources subject to traditional owner- ship or under customary use or occupation; or

(c) have significant impacts on Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communitiesô cultural heritage that is material to the identity and/or cultural, ceremonial, or spiritual aspects of the affected Indigenous Peoples/ Sub-Saharan African Historically Underserved Traditional Local Communitiesô lives.

If any of the above three circumstance will become applicable, project risk category will change from Low to Moderate to Substantial to High. As such none of the three circumstances are found applicable and therefore, for Low to Moderate Risk project, even if it is located in Schedule V or VI areas, FPIC will not be required.

2.7.10 ACTION PLAN TO BE IMPLEMENTED WITH EAP

.No.	Activities	Q1	Q2	Q3	Q4	Q5
1	Initial kick off meeting with communities including tribal communities on: i. project interventions including likely disruptions if any to water supply ii. preparation of EAP including likely timelines for mapping exercises of emergency resources (e.g. boats, community volunteers, etc.) iii. Inform them of the project level GRM;					

2	For EAP preparation, • hold consultation with general tribal communities involving Sarpanch and community members • Hold separate meetings with females, disadvantaged and vulnerable groups					
3	Develop culturally appropriate IEC materials (for STs) for dissemination					
4	Disclose draft EAP at Disclosure event with participation from local villages including headmen/Sarpanch					
5	Disseminate key details (or Executive Summary) of EAP by pasting details in local villages					

2.8 CULTURAL HERITAGE PROTECTION PLAN (ESS8)

Cultural Heritage Protection Plan will be applicable to those sub-projects, where cultural heritage of significance is identified within the project area and proposed interventions may have interface with cultural heritage of the area requiring plan for heritage protection during project implementation.

ESS8 recognizes that cultural heritage provides continuity in tangible and intangible forms between the past, present, and future and the CHPP is prepared for those sub projects which are likely to have risks or impacts on cultural heritage.

2.8.1 SCOPE OF CULTURAL HERITAGE PROTECTION PLAN (CHPP):

CHPP shall meet the following aspects:

6. Identify the presence of Archaeological protected monuments, present in dam or close vicinity of the dam
7. Identify applicable legislative restriction and comply with them.
8. Identify physical, cultural or any religious heritage of importance to communities in the area close to or in the vicinity of dam and is/ are likely to have impact
9. Define procedure for minimising the impact if any on cultural heritage of the areas.
10. To define procedure for dealing with chance find

2.8.2 CHPP PREPARATION AND APPROVAL

CHPP shall be prepared prior to start of construction, by Contractor in consultation with Engineer-In-Charge in accordance with ESMF provisions.

2.8.3 CONTENTS OF SITE SPECIFIC CHPP

vi. Identification of cultural resources and likely impact from the project

All archaeologically protected monuments and physical cultural resources of the community shall be identified. Risk and impact of the interventions on these resources shall be determined. Prior legislative permits, if applicable, shall be obtained.

vii. **Undertake community consultation and other stakeholders consultation** so that Community consultation and evolve sustainable protection measures.

viii. **Identification and Protection of Chance Find:**
Any chance find of historical or archaeological importance shall be informed to authority concerned and it shall be preserved under secure conditions.

ix. **Reporting**
Contractor shall share the CHPP monitoring reports with Engineer-In-Charge on regular basis.

x. **Responsibility**
Prime responsibility of developing and implementation of CHPP shall be of the contractor. However, IA will ensure its preparation and implementation in consultation with the Contractor. The IA shall also ensure deployment of experienced Cultural Heritage expert, if required.

2.9 STAKEHOLDER ENGAGEMENT PLAN (ESS10)

2.9.1 IDENTIFICATION OF STAKEHOLDERS

Based on the current set of proposed interventions, the following potential stakeholders were identified and categorized as Affected Stakeholders, Other Interested Stakeholders, and Disadvantaged & Vulnerable Stakeholder.

i. **Affected Persons:** There are no affected persons who shall be directly or indirectly adversely affected by the proposed interventions.

ii. **Other Interested persons**: In relation to structural interventions, these would be contractors, project management consultants, regulatory bodies/institutional stakeholders such as Pollution Control Board, Forest and Wildlife department or other environmental authorities, etc. In relation to non-structural interventions, these would be communities living downstream of dams, who would be the key stakeholders involved during implementation of EAP.

iii. **Disadvantaged and Vulnerable Stakeholders**: Illiterate persons, physically challenged, women and elderly would be key stakeholders ï requiring special focus and outreach to ensure that they are well informed about the provisions of the EAP.

2.9.2 STAKEHOLDER CONSULTATION

(Text below used for illustration)

A stakeholder consultation meeting was conducted at dam on 17/01/2020. It was attended by permanent staff of the borrower (WRD) working at dam, workers from nearby villages and locals. Following is the outcome of the stakeholder consultation meeting:

1. Agriculture is still the main occupation of people around the dam

2. Contract workers generally work for 3-4 months on dam in a year and carry out repair and maintenance activities
3. All the participants welcomed the proposed interventions relating to dam safety.
4. There are no pending issues regarding dam construction related resettlement
5. The participants explicitly mentioned that the dam is their lifeline and strengthening works will help their long term livelihood and therefore welcomed such information
6. Participants have expressed that they do not have any grievances and as such no grievances were ever reported from their communities/neighborhoods.
7. Local media representative informed that the dam is visited by many tourists (about 25000) during the monsoon season and the interventions will have a positive impact including safety.

2.9.3 STAKEHOLDER ENGAGEMENT AND PROJECT CYCLE

2.9.4

Table 1 lists the different types of information, relevant target audience depending on the nature of information, modes and frequency of engagement with these stakeholders.

Table 1 – Stakeholder Engagement by Activities				
Information to be disclosed	**Target stakeholders**	**Tools of engagement & mode of disclosure**	**Frequency**	**Responsibility**
Emergency Action Plans (preparation and implementation)	✓ District Administration, ✓ Revenue department ✓ Police ✓ SDMA, DDMA, NDMA ✓ Print and electronic media ✓ Farmers, Communities (affected/ other interested) in the dam vicinity	✓ Consultative meetings and EAP Dissemination workshop ✓ Website notifications ✓ SMS alerts ✓ Meetings to inform Village heads or community representatives	✓ Multiple	SPMU
Provisions related to a. Dam Safety b. Biodiversity around the dam and clearance if any required c. Cultural, religious or monumental heritage around dam , if exist	✓ Contractor ✓ SPMU staff ✓ Forest Department ✓ Pollution control Board ✓ Department of culture, if required ✓ Farmers, Communities (affected/ other interested) in the dam vicinity	✓ Consultation meetings related ESDDs and ESMP ✓ Web disclosure of related ESDDs and ESMP	✓ Multiple ✓ Must before work starts ✓ During implementation	SPMU
Work opportunities for Structural works	✓ Contractors ✓ Consultants	✓ Website notifications ✓ Tender advertisements in newspaper	✓ Multiple ✓ Continuous	SPMU
Work opportunities for ✓ Petty contracts ✓ Labor	✓ Communities (including disadvantaged persons) ✓ Petty contractor	✓ Website notifications ✓ Meetings to inform Village heads or community representatives	✓ Multiple ✓ Continuous	SPMU and Contractor
GBV related provisions	✓ IA officials ✓ Contractor personnel ✓ Consultant personnel	✓ Office circular and training events ✓ Website notifications ✓ Bid documents and Contract provisions	✓ Multiple ✓ Continuous	SPMU
Labor management procedure	✓ IA officials ✓ Contractor personnel ✓ Consultant personnel	✓ Website notifications ✓ Bid documents and Contract provisions	✓ Multiple ✓ Continuous	SPMU
Grievance mechanisms	✓ Communities (affected/ other interested) ✓ Contractors (for procurement related)	✓ Phone number or Toll free Helpline ✓ Display boards at site with GRM information ✓ Consultative meetings ✓ Website notifications ✓ Meetings to inform Village heads or community representatives	✓ Continuous ✓ Multiple	SPMU

2.9.5 TIMELINES FOR INFORMATION DISCLOSURE AND FEEDBACK

Information to be disclosed with timelines for providing feedback, responding to newspaper advertisements is presented below:

Table 2: Disclosure, feedback and timelines				
Disclosure of information/documents	**Mode of providing feedback**	**Timeline for feedback**	**Conveying of responses by SPMU**	
			No. of days	**Mode**
ESMF, SEF	Email id/website	-NA-		
Draft ESDDs/ESIAs; draft ESMPs	Email id/website	30 days	Within 7 days of end of feedback period	Website notification
Executive Summaries in local languages of ESMP	Email id/website	30 days	Within 7 days of end of feedback period	Website notification

2.9.6 MONITORING AND REPORTING

Quarterly progress reports of IA to include the following parameters

S. No.	Parameters	Status (Nos./description)
1	Number of consultation meetings conducted within a reporting period (e.g. monthly, quarterly, or annually);	
2	Number and types of IEC materials used	
3	Number of project events published/broadcasted in the local, regional media	
4	Type and frequency of public engagement activities;	
5	Number and type of grievances received within a reporting period (e.g. monthly, quarterly, or annually) and number of those resolved within the prescribed timeline	

.

CHAPTER 3: ENVIRONMENTAL AND SOCIAL MITIGATION AND MONITORING PLAN

3.1 PURPOSE OF ES MITIGATION MANAGEMENT AND MONITORING

For the relevant environmental and social risks identified during the ESDD process of the Project, Management Plans are furnished in Chapter 2. This Chapter provides E&S risk/impacts mitigation and management plan, along with monitoring requirement, responsible entity for implementation of mitigation plan as well as monitoring. The mitigation measures are presented ESS wise at Table 3.1.

Table 3.1 Environment and Social Mitigation and Management Plan

Activity and environmental aspects	Environmental and Social Risks/Impacts	Mitigation Measures	Stage of Action	Monitoring Requirements and Frequency	Responsibility of Implementation of Mitigation Measures	Monitoring Responsibility
Labour Camp (ESS 2)	Labour health, Hygiene, Drinking Water availability and Sanitary waste generation	Provide clean, hygienic and safe camp facilities for workers with provision of safe drinking water, separate canteen facility, first aid, periodic health check-up and waste management. Make Provision for adequate number of toilets separate for male and female, with arrangement of sewage collection and disposal	Before Construction	Physical Inspection by IA before construction and thereafter every 3 months or if any complaint is received whichever is earlier. Review of complaints should be done every month by IA.	Contractor	IA
	Water and Power requirement impacting other competitive users	Source of water and power for labour camp as per advisory from IA	Before Construction			
	Tree cutting by labour for cooking and space heating	Provision of community kitchen/kitchen fuel (LPG) for labour. Restriction of cutting any tree	Before Construction			
	Outside labour, may be bringing in new and infectious diseases not known to area	Pre deployment health check -up of labour	Before Construction	Review of records of health check-up before start of construction	Contractor	IA

Activity and environmental aspects	Environmental and Social Risks/Impacts	Mitigation Measures	Stage of Action	Monitoring Requirements and Frequency	Responsibility of Implementation of Mitigation Measures	Monitoring Responsibility
	SEAH/GBV risk within as well as outside the camp	Training and awareness of workers, identification of GBV hotspots and monitoring, establishing GRM mechanism	Entire duration of project	• Review of training records and identified GBV hotspots and monitoring arrangement at start and every 3 months • Monthly Review of complaints received under GRM	Contractor; IA to establish GRM; GBV support	IA and SPMU for GRM
Labour employment and working conditions (ESS 2)	1. Non-payment of wages and overtime 2. Non-compliance to working hours, number of working days per week, rest day and rest time 3. Inadequate facilities at site - drinking water, toilets, food 4. Not providing temporary accommodation for labour free of charge with separate toilet, bathing and lavatory facilities 5. Not providing kitchen and creche, if applicable 6. Employment of child labour	Ensure compliance to BOCW and other applicable legal instruments; latest state government notification issued by Labour Department for minimum wages, working hours, child labour age should be complied with.	Before construction - Contractors Labour License, Insurance, ESI and PF registration Regular review during construction	Document review such as licenses, record register and muster roll; Physical inspection of working condition at site and labour camp; every 3 months or if any complaint is received whichever is earlier; Review of complaints received under GRM every month	Contractor	IA
Occupational Health and	1. Unsafe working conditions ï poor	1. Contractor/Supervisor will inspect the work sites and mark them as high,	Before construction ï	Review of training records, review of availability of	Contractor	IA

Activity and environmental aspects	Environmental and Social Risks/Impacts	Mitigation Measures	Stage of Action	Monitoring Requirements and Frequency	Responsibility of Implementation of Mitigation Measures	Monitoring Responsibility
Safety during works (ESS 2)	marking, instructions, 2. Not enough PPEs for all workers; PPEs not appropriate for all types of risks at site or Poor quality PPEs 3. Inadequate training and awareness of workers in use of PPEs and/or in emergency response,	moderate and low risk areas and ensure workers follow instruction to work in these areas 2. Adequate number of good quality appropriate PPEs to be provided by contractor ï helmets, gum boots, safety belts, safety harness, gloves, overalls, ear plugs, face masks, etc. 3. All workers should be provided with training on use of appropriate PPEs and how to respond during emergency 4. Adequate EHS instructions shall be displayed at site 5. Provision of First aid with availability of trained first aiders shall be ensured 6. SOP shall be developed as per best practices and IFC EHS guidelines for unsafe conditions like working on height, working in confined areas, electrical safety, fall prevention, handling of hazardous material like welding gases 7. Adequate provision of life jacket if working on reservoir side 8. Procedure of incident prevention, investigation and corrective preventive action	training and availability of PPEs During construction ï marking of areas as per risks, rehearsing emergency response and identify training needs	PPEs, Review of accident records and corrective preventive action reports ï before start of construction thereafter every 3 months		
COVID 19 conditions	Global Pandemic seriously affecting the employment of labor and working conditions	• Appointing a COVID-19 focal point with responsibility for monitoring and reporting on COVID-19 issues, and liaising with other relevant parties	Before start of mobilization of workers	First hand monitoring and review	Contractor and IA	Contractor and IA
Use of resources ï water, power and raw	Resource wastage, impact on land environment while procuring material from quarry/borrow	Resource planning will be done by contractor in consultation with engineer in charge (Estimate of material requirement from quarry/borrow area, identification of nearest locations with approval status . Ensure that	Before start of construction work	Review of resource planning ensuring efficiency Review of quarry and borrow material requirement	Contractor with IA	IA and SPMU

Activity and environmental aspects	Environmental and Social Risks/Impacts	Mitigation Measures	Stage of Action	Monitoring Requirements and Frequency	Responsibility of Implementation of Mitigation Measures	Monitoring Responsibility
material for dam rehabilitation work (ESS 3)	areas	material is sourced from quarries or borrow areas which has valid environmental clearance.		with approval status, validity and environment clearance ï once before start of construction		
Pollution generation from rehabilitation work sites and labour camp (ESS 3)	1. Air and noise emissions from storage and handling of raw material and during execution of civil and hydro-mechanical work 2. Water pollution from construction activities and from labour camp 3. Debris waste generation from excavation work, if any, and debris generation from repair work 4. Hazardous waste generation from civil construction work such as painting and hydro-mechanical work, replacement of parts, etc.	1. Ensuring covered storage of lose material/sprinkling of water to minimise fugitive emissions 2. Maintaining construction equipment and ensuring DG set used for power have valid certificate of Type Approval and also valid certificates of Conformity of Production as per conformance labelling. DG stack height shall be as per the Consent to be obtained from State Pollution Control Board before start of work. 3. Ensuring use of dust masks, if workers are exposed to dust emissions and ear muffs for exposure to high noise for long durations 4. Provision of mobile toilets at work site 5. Wastewater from construction sites not to be discharged untreated (compliance with general discharge standards) 6. Construction debris to be disposed off at pre-identified and approved site 7. Hazardous waste (Empty barrels/containers/liners contaminated with hazardous chemicals /wastes; Contaminated cotton rags or other cleaning materials) to be separately stored and disposed off to authorized vendors only	During entire project duration	Ambient Air Quality Monitoring only for projects which are in close proximity to protected areas and shall be based on activities/component proposed($PM_{2.5}$, PM_{10} and SO_2 for 24 hours) at 2 major construction sites, before start of construction (as identified by Engineer in charge) once during construction and once at the end of rehabilitation work Sound Level monitoring (dB(A) levels) only for projects which are in close proximity to protected areas at 2 major construction sites (as identified by engineer in charge), once before start of construction once during construction and once at the end of rehabilitation work	Contractor through NABL accredited Lab; Contractor	IA

Activity and environmental aspects	Environmental and Social Risks/Impacts	Mitigation Measures	Stage of Action	Monitoring Requirements and Frequency	Responsibility of Implementation of Mitigation Measures	Monitoring Responsibility
				Monthly physical inspection to ensure wastewater from rehabilitation work is not being disposed off in river; debris is being disposed off at identified locations. soil level : near construction camp site or active work site area where probability of waste discharge exists Physical inspection of use of PPEs, review of DG specification, wastewater discharge, debris handling and disposal ï every month Physical inspection of segregation, storage and disposal of hazardous waste to authorised vendor ï every month		
Transportation of material to project site through village roads. (ESS 4)	Increase in the traffic on village roads leading to air and noise emissions as well as risk of accidents.	1. All vehicles used by contractors for transportation of persons and material should have valid PUC 2. Lose material should only be transported in covered vehicles	During entire duration of project	Physical inspection and review of documents before construction and thereafter every 3 months or if any complaint is received whichever is earlier	Contractor	IA
Impacts on Agricultural Land/ structures/	Temporary loss of business Land and assets temporarily impacted	As per ESMP section 2.5	Pre-construction	Ongoing	IA	IA

Activity and environmental aspects	Environmental and Social Risks/Impacts	Mitigation Measures	Stage of Action	Monitoring Requirements and Frequency	Responsibility of Implementation of Mitigation Measures	Monitoring Responsibility
assets (ESS5)	during construction Minor impacts on community resources/Common property resources					
Biodiversity Conservation for sub-projects in close proximity to Protectedareas as per ESMP (ESS 6)	Indirect impacts due to rehabilitation work in proximity to protected areas involving limited outside labour	As per ESMP section 2.6 1.	Before start of construction	Physical inspection of location of labour camp wrt PA before start of construction	Contractor and IA	SPMU
Tribal Development Plan for sub-projects in Schedule V or VI areas preparing EAP and other locations wherein there are tribals as per characteristics of ESS 7	Non-structural interventions such as preparation and implementation of EAP and early flood warning systems will involve consultation with variety of stakeholders including tribal groups, living in the vicinity of the dam and would need to be consulted and informed in culturally appropriate approach ï	During EAP Implementation: 1. Identification of scheduled areas and tribal clusters to prioritize targeting of dispersed indigenous communities in the non-tribal areas as well as for clear targeting of tribal in the schedule V and VI areas 2. Development of culturally appropriate Information Education and Communication (IEC) materials for dissemination in the project areas to avoid panic/rumours and providing correct and accurate information in a manner understood to locals 3. Deployment of local (tribal) Community Facilitators to hold consultations and generate awareness in tribal areas on EAP provisions and implementation.	During implementation of EAP	Review of Plan of engagement of tribal population for EAP implementation Review of complaints received before start of construction	IA	SPMU

Activity and environmental aspects	Environmental and Social Risks/Impacts	Mitigation Measures	Stage of Action	Monitoring Requirements and Frequency	Responsibility of Implementation of Mitigation Measures	Monitoring Responsibility
(ESS 7)	language, techniques that are familiar to them.	4.				
Cultural Heritage for sub projects impacting any protected monuments as identified in ESDD (ESS 8)	Damage to monument/site of cultural heritage	1. Before start of construction, joint inspection by contractor and IA, of cultural heritage site will be undertaken 2. Workplan will be prepared to ensure no direct/indirect impact from work. 3. Labour interference or labour access to the site will be prohibited 4. ASI rules for visit to site or any other regulation will be strictly adhered to 5. Training and awareness of labour to cover protection of site	Before start of construction	Review of work plan vis-à-vis protection requirement to cultural heritage Review of training records	Contractor and IA	SPMU
Stakeholder Engagement Plan (ESS 10)	stakeholder participation, implementing the grievance mechanism, ensuring continuous information transfer through open communication	Grievance mechanism EAP consultations, dissemination material, awareness sessions, print and electronic media campaigns	Early in the project Throughout the project across various activities		IA	IA

3.2 ES MITIGATION AND MONITORING PLAN – ACTION RESPONSIBILITY MATRIX

Various preparatory action and plans are to be prepared before start of construction work by contractor and Implementing Agency (Reference Chapter 2 and section 3.1) Table below lists actions to be taken by contractor and IA .

By Contractor		
Specific Action/ Preparation requirements	**Reference Document /format**	**Stage of Action /Frequency**
Preparation of Labour Camp Plan(if labor camp are proposed)	Number of workers, number of units required, duration of stay; facilities proposed to be provided ï toilets, kitchen drinking water, waste management	Once - Before start of work
Health check-up of workers (if workers are planned to stay at site for more than six months)	Health check records	Once - Before start of work
Training and awareness of labour ï GBV/ SEA, Code of Conduct, OHS requirements	Topics covered, date of training and attendance	First before start of work, thereafter after every 3 months
Compliance to labour laws	Copy of Labour license, ESI, PF	First before start of work, thereafter as per expiry/renewal
Identification of hazardous working locations and marking and emergency response plan	List of risky activities	Before start of work
Availability of PPEs	List of PPEs ï number of each type	Before start of work
Training of workers on use of PPEs and Emergency Response	Training records	First before start of work, thereafter after every 3 months
Ambient air quality and sound level monitoring for projects in close proximity to protected areas	As per the report of NABL accredited lab	Before start of work, during construction and at the end of rehabilitation work
Identification of authorised vendor of hazardous waste	Name of the vendor, status of authorisation and copy of authorisation	Before start of work
Identification of approved quarry/borrow area	Name of the supplier, copy of approval	Before start of work
Submission of Quarterly Progress Report		Within 2 weeks of end of every 3 months period from start date

By Implementing Agency supported by EMC	
Specific Action/Preparation requirements	**Timeline/Frequency**
Identification of suitable location of labour camp, if applicable	Before start of work
Identification of source of water and power for labour camp, if applicable	Before start of work
Identification of GBV hotspots	Before start of work
Approval of quarry/borrow area	Within one week of submission of details by contractor
Identification of ambient air quality and sound level monitoring locations for projects in close proximity to protected areas and shall be activity specific.	Before start of work
Identification of debris disposal location	Before start of work
Establishing GRM and its awareness - poster/signage with contact details	Before start of work
Ensuring effectiveness of GRM and review of complaints received	Every month during the entire duration of project implementation
Inspection of labour camp ensuring adequate facility	First on set up, thereafter every 3 months
Reviewing contractors documents and ensuring compliance to labour laws	First on setup, thereafter every 3 months
Ascertaining adequacy of good quality PPEs	Once before start of work, thereafter every 3 months
Physical inspection at work site - air emissions, noisy operations, use of PPEs	Every month during the entire duration of work
Submission of Quarterly Progress Report	Within one month, from end of every 3 months period from start date

CHAPTER 4. IMPLEMENTATION ARRANGEMENTS AND ESMP BUDGET

The ESMP implementation is mainly the responsibility of Contractor engaged for the Works. Implementing Agency is responsible for Sub Project level activities not directly addressed by Contractor such as GBV referral mechanism, Stakeholder engagement etc. The EMC engaged by Implementing Agency will support the IA in implementation monitoring of ESMP.

In compliance with ESMF, the framework provisions of ESMP, which shall be implemented by Contractor will be included as part of Bids and the Contractor upon on boarding shall submit C-ESMP with updated inputs on management plans. The ESMP will be updated, should additional information/ impacts are determined during the project.

4.1 IMPLEMENTATION AND SUPERVISION ARRANGEMENTS

Table below outlines the management measures and implementation and supervision arrangements for the various activities at different stages of the project.

S. No	Project Stage/Activity	Management Measures	Responsibility	
			Planning and Execution	Supervision/ Monitoring
1	Establishing Labour Camp before start of construction, if required	Provision of separate toilets for male and female, sanitation and waste collection & disposal facilities, provision of kitchen fuel/community kitchen	**Contractor**	**Engineer in Charge**
2	Health check of labour before induction(in case outside labor are proposed to employ and stay for more than six months)	Health from an authorised government hospital/dispensary and submission of record	Contractor	Engineer in Charge
3	Compliance to labour laws - before start of construction	Ensure compliance to BOCW and other applicable legal instruments including; latest state government notification issued by Labour Department for minimum wages, working hours, child labour age.	Contractor	Engineer in Charge
4	Identification of GBV hotspots and accident	Physical survey and hotspot identification	E&S Expert at Dam	Engineer in Charge

S. No	Project Stage/Activity	Management Measures	Responsibility	
			Planning and Execution	Supervision/ Monitoring
	hotspots on transport route before start of construction			
5	Workers training	Workers training covering SEA/SEAH and GBV risks and consequences, OHS training and emergency actions, Code of Conduct ï awareness and acceptance; biodiversity conservation	Contractor	SPMU
6	Occupational Health and Safety of workers during entire duration of project	1. Contractor/Supervisor will inspect the work sites and identify the high risk areas, if any; ensures workers follow instruction to work in these areas 2. Adequate number of good quality appropriate PPEs to be provided by contractor ï helmets, gum boots, safety belts, safety harness, gloves, overalls, ear plugs, face masks, etc. 3. All workers should be provided with training on use of appropriate PPEs and how to respond during emergency	Contractor	Engineer in Charge
7	Resource planning before start of construction	1 Resource planning will be done by contractor in consultation with engineer in charge (requirement of water and power at various location for construction work and labour camp) 2 Estimate of material requirement from quarry/borrow area, identification of nearest locations with approval status	Contractor	Engineer in Charge
8	Pollution prevention during entire project duration	1. Ensuring covered storage of lose material/sprinkling of water to minimise fugitive emissions. 2. Maintaining construction equipment and ensuring DG set used for power have valid certificate of Type Approval and also valid certificates of Conformity of Production as per conformance labelling 3. Ensuring use of dust masks, if workers are exposed to dust emissions and ear muffs for exposure to high noise for long durations 4. Provision of mobile toilets at work site 5. Wastewater from construction sites	Contractor	Engineer in Charge

S. No	Project Stage/Activity	Management Measures	Responsibility	
			Planning and Execution	Supervision/ Monitoring
		not to be discharged untreated (compliance with general discharge standards) 6. Construction debris to be disposed off at pre-identified and approved site 7. Hazardous waste (Empty barrels/containers/liners contaminated with hazardous chemicals /wastes; Contaminated cotton rags or other cleaning materials) to be separately stored and disposed off to authorised vendors only		
9	Safe transportation of man and material during entire duration of project	1. All vehicles used by contractors for transportation of persons and material should have valid PUC 2. Lose material should only be transported in covered vehicles	Contractor	Engineer in Charge
10	Inspection of Labour Camp wrt to Conservation Reserve	1. Physical inspection ensuring no easy access to conservation reserve from work site/labour camp and shortcuts 2. Blocking of access/shortcuts	E&S Experts	Engineer in Charge
11	EHS monitoring	To be undertaken throughout the project implementation period with inspection by E& S staff of contractor monthly and report submission	E&S experts of contractor	IA

Reporting by contractor and monitoring by SPMU

Contractor will prepare a Quarterly Progress report (QPR) and submit to E&S Experts/SPMU giving the compliance of ESMP. Details will include status on:

1. Progress on ESMP implementation work plan.
2. Status of Compliance with E&S statutory requirements such as labour licenses, insurance, etc.
3. ESHS incidents & supervision.
4. Usage (no. required, distributed and used) of Personal Protective Equipment (PPE) such as hard hats, safety shoes and safety vests by workers.
5. Safety at work sites like COVID incidents, providing traffic signage, barriers/delineator, management of traffic, drainage and pliable road surface etc.

6. Training conducted, and workerôs participation (submit reports with statistics of training and workerôs participation).
7. Functioning of GRM relating to labour aspects, including summary details of Workers grievances, if any.
8. Community grievances, if any.
9. Corrective Actions and planned E&S activities for next quarter.

SPMU will prepare its quarterly monitoring report and submit the same along with contractors report to CPMU.

ANNEXURE 1: OUTLINE OF CONTRACTOR'S ESMP

(will cover all on site issues and responsibility with management; include chance find procedure if applicable)

1. **Sub-project activities description under Contractor's Scope**

2. **Licensing Requirement**
   - 2.1 Labour License
   - 2.2 Insurance
   - 2.3 Use of approved quarry/borrow areas, if such material is required
   - 2.4 Any other

3. **Workforce management under COVID 19 considerations, if applicable**
   - 3.1. Profile of work force ï work activities, schedule, contract duration, workforce rotation plan, workers place of stay, workers with underlying health issues
   - 3.2. Measures to mitigate risks on account of COVID 19
   - 3.3. Contingency plan covering ï pre-health checkup, access restrictions, hygiene, waste management, accommodation arrangements, PPE provision and usage
   - 3.4. Reporting and handling of Instances of COVID 19 cases, training and communication with workers, training and SOPs on communicating and contact with community

4. **Labour Camp (if outside labour is accommodated in a labour camp)**
   - 4.1. Location of Labour Camp
   - 4.2. Number of labour to be housed and duration
   - 4.3. Break-up of labour workforce ï male, female, children
   - 4.4. Number of Units in Labour Camp
   - 4.5. Source and Provision of Water and Power Connection including Drinking Water
   - 4.6. Cooking Arrangement ï Individual Kitchen/community Kitchen
   - 4.7. Source, Type and Provision of Kitchen Fuel
   - 4.8. Toilet facilities ï individual/community; fixed/mobile and sewage disposal arrangement
   - 4.9. Waste collection and disposal arrangement
   - 4.10. Identify Risk of Community Interface ï any fencing/separation requirement
   - 4.11. Security and general lighting arrangement

5. Resource Planning

5.1. Water and power requirement for works and locations
5.2. Need for water line or electrical wiring
5.3. Raw material requirement and source(s)
5.4. Temporary storage(s) at site and location(s) ï cover/uncovered
5.5. Transportation route from source to storage

6. Pollution Prevention

6.1. Potential of dust emission from openly stored raw material and mitigation arrangement ï covering, sprinkling, etc.
6.2. Potential of water pollution from spillage and leakage from raw material storage and preventive measures
6.3. Potential of air emissions from works including toxic emissions from paints and chemicals, emissions from DG sets and other construction equipment ï locations where potential is high, possibility of community impact, impact on workers, preventive measures such as dust masks for workers, etc.
6.4. Potential of noise generation from works (use of equipment and machinery, demolition work) including from any activity planned at nigh time ï locations where potential is high, possibility of community impact, impact on workers, preventive measures such as ear muffs, etc.
6.5. Potential of water pollution from works ï possibility of leakage to surface water or accumulation in low lying areas; preventive measures/treatment requirement
6.6. Estimate of excavated earth/construction debris requiring disposal ï quantum, sources(s) of generation, identified dumping sites, transportation mode and route, period of dumping and restoration plan

7. Occupation Health & Safety and Emergency Management

7.1. PPE requirement and numbers
7.2. Lists of tasks and work zone critical for hazard prevention, if any
7.3. Location of warning signage for hazard prevention
7.4. Requirement of first aid boxes and portable fire extinguishers
7.5. Key person(s) to be contacted during emergency
7.6. Protocol for deciding the level of emergency ï need for hospitalization, information to authorities, etc.
7.7. Process of accident analysis, corrective and preventive measures and need for reporting

8. Addressing GBV Risks

8.1. Preventive measures ï provision of lighting, separate toilet areas for men and women, increased vigil and security arrangement for community sensitive GBV hotspots, if identified by dam authorities.

8.2. Sensitizing and awareness of labour on GBV issues including penalties and legal action against offenders

8.3. Awareness about GRM

9. Code of Conduct

9.1. Preparation of Code of conduct

9.2. Making labour aware of conduct with all the provisions, doôs and donôts, penalties for non-compliances, etc.

9.3. Displaying CoC at prominent locations

9.4. Signing of CoC by workers

10. Awareness and Training

10.1 Plan for training and awareness covering Pollution Prevention, OHS, Use of PPEs, Accident reporting and emergency management, CoC, GBV, GRM, etc.

10.2 Training schedule

10.3 Training records

ANNEXURE 2:SUB-PROJECT SPECIFIC E&S SENSITIVE INFORMATION

{SUB-PROJECT SPECIFIC IMPORTANT AND E&S SENSITIVE INPUTS TO BE INCLUDED HERE}