

Environment and Social Systems Assessment
Himachal Pradesh Power Sector Reforms Program
2021-2022



The World Bank
New Delhi, India

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SECTION 1: EXECUTIVE SUMMARY

1.1 Context

Himachal Pradesh (HP) has a geographical area of 55,673 sq. km. and constitutes nearly 11 percent of the total area of the Himalayas. Himachal Pradesh is an almost wholly mountainous state with nearly 30 percent of its geographical area permanently under snow, and more than 66 percent designated as forest. It has a total population of 68,64,602 (34,81,873 males and 33,82,729 females), with a population density of 123 as per 2011 Census which is 0.57 per cent of India's total population, recording a growth of 12.81 per cent. The Scheduled Caste population stands at 17,29,252 (25.19%) and the Scheduled Tribes population stands at 3,92,126 (5.71%).

The World Bank's engagement with Himachal is long and trusted. Over a seven-year period, the World Bank has helped Himachal Pradesh move forward on its green and inclusive development agenda with special focus on sustainable hydro development. Development of 1500 MW Nathpa Jhakri Hydro Project (2000) and 412 MW Rampur (2007) Hydro project were some of the long-standing hydro engagements of the Bank in the state. In 2009, the World Bank's first Development Policy Loan (DPL) provided the state with \$200 million in budgetary support to implement much-needed fiscal reforms. Hydropower is Himachal Pradesh's largest source of revenue, and the state holds a quarter of India's total potential. The adoption of environmentally and socially responsible hydropower policies helped the state develop its hydropower resources in a sustainable manner well into the future. The two DPLs that followed – for \$ 100 million each, between 2011 and 2014 - helped the state promote environmentally and socially sustainable development in hydropower. To address environmental risks, the government has taken the first steps towards a comprehensive river basin management approach. In addition, recognizing the need for assuring environmental flows across the country, HP is the first state in India to have mandated environmental flows of a minimum of 15 percent (of the average lean flow) in all hydropower developments for eco-systems, and to provide for the riparian rights of downstream communities. HP has also brought in a river basin approach to the development and implementation of Integrated Basin-wide Catchment Area Treatment (CAT) Plans– deemed India's best-practice for managing environmental impacts of multiple hydropower developments in the same landscape.

India has set a Net Zero Emission Target to be achieved by 2070. In order to achieve this goal, renewable energy (RE) would play an extremely critical role. Within RE, the major focus is on solar and wind energy. However, these sources of energy are highly variable in nature as they are weather dependent. The challenge is compounded as RE sources cannot displace the baseload demand, which is currently catered largely through fossil-fuel based sources. Hence, to bridge the gap, the sector needs to balance different sources of energy. One such source is hydropower, which is concentrated only in a few states in India of which Himachal Pradesh is one.

Power in HP is supplied through a network of transmission; sub-transmission and distribution lines laid in the state. Since its inception, Himachal Pradesh State Electricity Board Limited (HPSEBL) has made long strides in executing the targets entrusted to it. The state achieved 100 percent electrification in to all its census villages in 1988 and ensured 24 x 7 uninterrupted power supply and provides electricity at the lowest tariff in the country. Himachal has also achieved the unique distinction of 100% metering, billing, and collection. The state has the highest household/consumer coverage ratio in the country i.e., about 98% as per Rural Electrification Corporation's (REC) survey and HPSEBL has been adjudged one of the best Boards in the country.

Himachal Pradesh aims to be India's first 'Green State' by meeting 100 percent of its energy requirement through renewable and green energy by 2034. The state being hydro-rich, would like to keep pace with the changes and the challenges in the energy sector with an increase in the penetration of variable renewable energy (VRE) sources of generation as well as consumers turning into producers. Given this, HP is embarking on holistic power sector reforms across power generation, transmission, and distribution to provide clean, green and quality power to the end-consumers.

1.2 Program context: PDO, Program Description

The **Himachal Pradesh Renewable Power Sector Development Program** is an umbrella program for development of energy sector of Himachal Pradesh. The proposed Program Development Objective (PDO) is *to improve renewable energy integration in Himachal Pradesh*.

This HP Power Sector Reforms Project Program looks at an existing one of the hydropower projects and bundle its generation with other sources of RE that are variable to allow having a firm generation supply that can act as a baseload and displace fossil fuel-based generation. Once successful, it will be expected to have a lighthouse effect for other states as well as for the region.

The Program is also supporting the state to diversify its RE resources as even hydropower has certain limitations, such as, its seasonal nature. For HP to meet its Green State agenda, non-hydro RE sources like solar also needs to be developed. As of now, the state has little over 50 MW of installed solar capacity compared to over 57GW of installed solar capacity across the country. While the state has a target of installing 2 GW of solar by 2030, it has not received any private sector participation till now. Thus, it is important to have comprehensive public sector installations in the initial period. Accordingly, the Program will support the state in the initial 10% of such installations to create confidence among private sector players. Furthermore, such solar capacity is also likely to enable replication of the Bundled RE Product with other hydropower. This would help HP to provide firmer power to its own consumers, essentially commercial and industrial, who are demanding firm green power supply. The Program also intends to push to have a single trading desk to allow the state to comprehensively plan its demand-supply matching in a cost effective manner.

The PDO is for improving RE integration in the state but integration of RE goes beyond generation. It is essential to cover robust and resilient transmission systems as well as smart and interactive grid to allow serving the masses efficiently. This is even more important as consumers are turning producers by way of decentralized solar rooftop and Electric Vehicles (EVs). Hence, the Program has identified certain critical segments where such systems are a bottleneck and to strengthen them to allow adequately serving those consumers with an increasing amount of green electricity.

The scope of the program has several focus areas, including improved integration of RE sources in the state and national grid through better utilization of its current generation base (primarily, hydropower) through bundling various RE resources (solar, wind, biomass, etc.). In addition, the Program will support the development of a state-of-the-art transmission and distribution network along with integration in its load dispatch operation system, thus making surplus power generation in HP available for trading. Institutional strengthening is an additional important pillar of this engagement. The Bank's Program rests on the state government's own program and contributes directly to the objectives set forth under the state's 2021 energy policy.

To achieve this, the Program rests on the three pillars described below.

1. Pillar 1: Promoting optimal deployment and utilization of the power sector resources

1.1 Improved integration of RE through better utilization of flexibility of hydropower and attracting new investments in the RE sector. The Program will support valuation of the hydropower projects beyond just the energy served, focusing on their bundling with other RE technologies, having as a result improved trading opportunities for the state, enhanced value of hydropower, and increased share of VRE. Specifically, an existing hydropower project with no Power Purchase Agreement (PPA) (100 MW Sainj Hydro Project in Beas Basin) is taken as a candidate to run a business case on how it can support the non-hydro RE integration, while providing firmer power supply that is clean and green to its off-takers, therewith contributing towards the net zero emissions trajectory of these off-takers. The state further aims to establish at least 150 MW of solar projects across the various land banks available throughout HP and supporting the state in exploring the pathways for adoption of green hydrogen in HP.

1.2 Promoting Integrated Resource Planning (IRP) for demand response management. With 100 percent of electrification almost achieved, HP's rate of addition of new consumers has fallen below 1 percent and load growth is happening mainly by consumption growth. Consequently, the peak demand is growing, with the load factor decreasing since 2014. Any additional internal load growth is going to be driven by industrialization and improved quality of life, calling for demand side management and deployment of storage options. The immediate Program focus will be on development of the framework for IRP, followed by piloting the demand response management system which is SLDC's mandate on Automated Demand Management System (ADMS), a requirement as per the clause 5.4.2.d of the Indian Electricity Grid Code (IEGC). The demand response systems which will contribute towards the objective of ADMS which allows restriction to the drawl of the state within the net drawl schedule during contingencies or threat to system security.

1.3 Setting up an independent single trading desk. Since multiple state institutions are involved in trade of power, a combined sale of electricity would contribute to increased efficiency of power trading operations in HP by establishing of an independent trading desk with specialized personnel will be undertaken as part of the Program.

2. Pillar 2: Promoting Resource Efficient Investments

2.1 Strengthened transmission systems. HPPTCL intends to augment and strengthen the Extra High Voltage (EHV) transmission systems which will result in increased integration of RE plants within the state, better evacuation of RE-based energy to the northern grid, and improved reliability of power supply to the state's consumers especially commercial and industrial.

2.2 Strengthened distribution network. HPSEBL will strengthen/augment the distribution network along with SCADA and communications (optical fiber cables) systems in the selected thirteen towns (Baddi, Bilaspur, Hamirpur, Kullu, Mandi, Manali, Nahan, Nalagarh, Paonta Sahib, Parwanoo, Solan, Sundernagar and Una). This shall allow the state distribution company to reduce outages due to faulty distribution transformers during faults in these 13 towns.

2.3 Supporting optimal scheduling and dispatch of electricity. Upgrading and replacement of the SCADA for HPSLDC, allowing the state system operator to improve its grid operations functions in line with the targets set forth by the National Power System Operator (Power System Operations Corporation Limited [POSOCO]) for seamless grid operations across the different geographies within the country. This activity will also look at integrating the various elements, such as all new upcoming 66 kilo-volts (kV) and above substations with HPSEBL, mini/micro hydropower projects for monitoring at HPSLDC, etc.

3. Pillar: Strengthening institutional capacities of the various state power sector utilities/agencies

3.1 This is an overarching pillar to strengthen the institutions by improving E&S outcomes. It rests on the gap analysis and will work through the Program to bridge the gaps as part of the implementation. E&S aspects are an integral pillar of the whole Program and aims to make HP's Power sector growth holistic, inclusive and sustainable.

3.2 Since various power sector utilities and agencies will play an important role in delivering the Program, their capacity building and institutional strengthening is of the utmost importance in this engagement. The activities will include identification and addressing key policy gaps and procedures; strengthening monitoring evidence-based reporting of E&S risk management; setting up E&S cells in each IAs with adequate resources as part fo capacity building program. These activities will allow all power entities in HP to integrate monitoring of key Program E&S activities through a dashboard with DoE. Further, training and re-skilling on technical and soft skills will be undertaken after completing a training need analysis, keep pace with various evolving technologies. This is applicable to DoE as well as to all the entities.

1.3 Key Institutions

The following would be the implementing agencies for the project:

Institution	Function
Directorate of Energy (DoE) <i>Nodal agency for the program</i>	Develop policy framework and directions for hydro power and facilitate programs for efficient use and maximise the revenue
Himachal Pradesh Power Corporation Limited (HPPCL)	Plan, promote and organize the development of various aspects of hydroelectric power.
Himachal Pradesh Power Transmission Corporation Limited (HPPTCL)	State level transmission utility
Himachal Pradesh State Electricity Board Limited (HPSEBL)	State level board for supply of electricity
HIMURJA	State nodal agency for promoting and supporting renewable energy projects and products
Himachal Pradesh State Load Dispatch Centre (HPSLDC)	Apex body for operation of the power system in a State and monitor grid operation

1.4 ESSA: Objectives, Scope, Bank requirements

Management of environmental and social effects in a PforR (Program for Results) operation requires specific actions during preparation and implementation. The core principles¹ and key planning

¹ Under Program-for-Results Financing, ESSA covers Program System Consistency with Core Principle of OP 9.00 which include #1 - E&S management systems are designed to (a) promote E&S sustainability in the Program design; (b) avoid,

elements incorporated into the policy are necessary to achieve outcomes consistent with PforR objectives. These principles and elements are intended to guide the assessment of existing borrower's Program as well as the Institutional capacity to plan and implement effective measures for environmental and social risk management.

The PforR financial instrument does not support programs or activities that could cause significant harm to the environment, or which would have significant adverse social consequences. Whether for existing or new programs, the **Environment and Social Systems Assessment (ESSA)** focuses both on institutional, organizational, and procedural considerations that are relevant to environmental and social risk management.

1.5 ESSA Methodology and Consultations

The ESSA was prepared during the Covid-19 pandemic. Therefore, the ESSA draws upon ongoing assessments, secondary literature, and virtual meetings. Most interventions are focused on policy and system strengthening. Hence, the ESSA largely focused on social and environmental systems and institutional capacity to manage the identified risks and provides recommendations for strengthening these systems and capacities. This program is unique because it is spread across six institutions with a diverse nature of activities that covers policy, reforms, and infrastructure development.

- a. **Desk review:** The methodology included a thorough desk review. The agency/utility wise checklists were prepared which were used for gathering information through existing reports provided by the agencies, virtual meetings. Desk review covered analysis of existing policy, operational procedures, institutional capacity, and implementation effectiveness relevant to the activities under the Program. Range of environmental and social issues like environmental conservation, pollution control, occupational health and public safety, labour welfare, social inclusion, gender, and citizen engagement were examined. Existing documents, assessments conducted by technical agencies, documents and reports received from government counterparts, data, websites and other reports by other agencies were reviewed.
- b. **Consultations for Preparation:** Towards the latter part of the assessment (March 2022), brief missions were organised for face-to-face interaction with the client and utilities to seek more information, vet the assessment and seek more clarifications.
- c. **Consultations for finalising the report and recommendations:** A final draft of ESSA report was discussed in May 2022 at a consultation workshop in Dharamsala, which was attended by representatives of all utilities to obtain comments and suggestions and finalize the report.
- d. **Disclosure:** The final draft ESSA was disclosed online at the Directorate of Energy (DoE) web site (<https://doehimachal.nic.in/>) on 26th July, 2022. Other participating utilities have agreed to disclose ESSA before appraisil on their respective websites. Two stakeholder consultations in hybrid mode were also held on 20th May, 2022 and 5th July, 2022. ESSA was then updated to include consolidated feedback received via different sources and this draft will be re-disclosed online on respective implementing agency websites and World Bank external website.

minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects; # 3- E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; # 4 - E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards; and # 5 E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Tribals, Tribal Groups or Tribal Populations, and to the needs or concerns of vulnerable groups

1.6 Report Structure

The report comprises of three sections. The first section is the Executive Summary, the assessments for each of the implementing agencies is in section two. The third section comprises the annexures.

1.7 Summary of the Findings

1.7.1 Legal and Policy Assessment

Environment

- ESSA found that the Implementing Agencies (HPPCL, HPSEBL, HPPTCL) follow the regulatory framework of obtaining mandatory clearances of their projects/ activities, wherever required, under EP Act, 1986, the Indian Forest Act, 1927; the Forest (Conservation) Act, 1980; the Wildlife (Protection) Act, 1972; and the Biodiversity Act, 2002.
- Subsequently, it goes under the second level of procedure, where it seeks 'Consent to Establish' and 'Consent to Operate' from State Pollution Control Board, under Air and Water Acts. This straight-jacket approach supports environmental risk and impact identification and mitigation for major projects (above 5 MW Renewable projects) or multi-lateral funded projects in the areas of transmission, distribution, or renewable generation.
- Based on gap analysis of existing Cumulative Environment Impact analysis (CEIA) of Beas Basin (https://moef.gov.in/wp-content/uploads/2019/06/Report-CIAampCCS-of-Beas-sub-basin-in-HP_compressed.pdf), ESSA also brings in need of undertaking comprehensive cumulative impact assessment in view of change in operating procedures due to bundling pilot as per international best practices. Further also explore possibility to benchmark basin wide renewable projects for evidence-based monitoring of all projects from environmental and social perspective in Beas Basin and gradually widely within state.

Social

- In cases of land acquisition, the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR) and Himachal Pradesh Rules, 2015 are applicable.
- In addition, sectoral policies like HPPCL's Resettlement and Rehabilitation Plan², 2009 and HPPTCL's Resettlement, Relief, Rehabilitation and Compensation Policy, 2011 (RRRCP) have also been framed to safeguard the interests of the project affected persons through the project cycle for the investments for infrastructure development.
- The Tariff Policy, 2006 and Himachal Pradesh Land Area Development Fund (LADF) provides for benefit sharing mechanisms for people adversely affected by hydropower projects. This intends to provide a regular stream of revenue for income generation on a sustained and continuous basis.
- The four Labour Codes on wages, industrial relations, social security, and safety and working conditions are also applicable and are supported by Himachal Pradesh State Rules³.
- The state has also aligned all service rules with the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.

1.7.2 Program Benefits

²Approved by the Government of Himachal Pradesh which is yet to be aligned with the RFCTLARR Act, 2013

³ Himachal Pradesh is one of the first few states to have framed the State Rules for all four codes: Code on Wages (Himachal Pradesh) Rules, 2021, Industrial Relations (Himachal Pradesh) Rules, 2021, Social Security (Himachal Pradesh) Rules, 2021 and Occupational Safety, Health and Working Conditions (Himachal Pradesh) Rules, 2021.

It is envisaged that the program will bring in following benefits:

Environmental

- Promote adoption of uniform environmental management system across all planned activities. Align the utility level environmental policies with the requirements of global best industry practices.
- Support further reduction in carbon footprint in energy sector with resource efficiency across power generation, transmission, and distribution system
- Strengthen institutional capacities with requisite skills for effective management on environment, health and safety.
- Enhance existing environmental Monitoring and Evaluation (M&E) systems to monitor environmental Management System which will include environmental flow, muck & debris management, forest catchments, biodiversity and climate risk concerns in a web-based Management Information System (MIS) tool or application.
- Enhancing environmental Management and mainstreaming environmental and social sustainability frameworks for existing, ongoing and pipeline projects in State's Energy Sector. Evidence-based monitoring by way of benchmarking basin wide projects will be introduced and shall be completed for adoption through out the state during the course of the project. This is based on recommendations of comprehensive basin wide strategic cumulative impact analysis to be undertaken during the course of the project focussing on basin where bundling pilot will be initiated. In this process the cumulative impact assessment already completed has been analysed for gap analysis and Terms of Reference has been developed to undertake comprehensive analysis.

Social

- Improved management of social impacts and risks by incorporating its management into the overall policy and vision of the sector and capacity building.
- Modernization and automation of distribution networks through Smart Meters and Consumer Indexing
- Improved transparency and accountability of agencies through responsive and effective complaint redressal mechanism integrated across all agencies
- Improved citizen interface and stakeholder engagement for better social risk management
- Enhancement of benefit sharing mechanisms through improvements in institutional mechanism for disbursements of LADF and effective tracking
- Adoption of gender inclusive and equitable workplaces.

1.7.3 DLI wise Risk Assessment

DLI Head	Social Implications	Environmental Implications	Agency
<p>RA 1: Developing a low carbon power sector in HP by enhancing flexibility and diversification of RE Sources</p> <p>(a) Promotion of Integrated Resource Plan (IRP) for demand response management – DLI 1</p> <p>(b) Enhanced utilization of existing hydropower project(s) to promote renewable energy– DLI 2</p> <p>(c) Single Trading Desk functional – DLI 3</p> <p>(d) Increase of New Solar Generation (MW) – DLI 4</p>	<p>Increase in societal benefits</p> <p>Temporary construction induced impacts on land and assets in neighbouring settlements.</p> <p>Influx of labour may compromise safety of women and children and increase pressure on resources.</p> <p>Government Land will be transferred for installation of solar generating units</p> <p>Potential force labor supply chain issue in Solar Power</p>	<p>Possibility of downstream and upstream environmental impacts along with related construction impacts during construction period.</p> <p>Operation specific release of water from dam downstream will change existing flow regime which may impact aquatic and bio-diversity.</p> <p>There could also be impacts from siting of planned solar project, including generation of debris due site clearance, movement of vehicles, sediment flow and muck disposal, oil spills, and localized air (mainly SO_x, NO_x and CO₂) and noise pollution.</p>	<p>DoE + HPSEBL + all utilities</p>
<p>RA 2: Strengthening of the state grid to ensure its reliability, resilience and sustainability</p> <p>(a) Increase in Transformation Capacity (MVA) s– DLI 5</p> <p>(b) Improvements in availability of reliable power supply – DLI 6</p>	<p>The interventions related to the transmission lines specific to Right of Way, may have adverse impact on community with temporary loss of assets (crops, trees etc.); for substations, government land would be used. However, in some cases, small amount of private land may be required depending on technical and financial feasibility.</p> <p>There would be potential for increase in gender-based</p>	<p>The environmental implications in laying of transmission lines include a) Diversion of forest land for non-forest use, b) Potential changes in land-use (e.g. fruit trees will need to be substituted by annual crops or pastures under the RoW), c) Clearing of ground vegetation for movement of machinery, d) Soil erosion due to digging for tower foundation.</p> <p>The environmental implications related to</p>	<p>HPPTCL</p>

DLI Head	Social Implications	Environmental Implications	Agency
	<p>violence during the construction phase with influx of labour; increase demand on local resources (water, fuel wood, etc) that may lead to conflicts with host population.</p> <p>Increase in employment opportunities of semi-skilled and unorganized workforce.</p>	<p>setting up of sub-stations include: a) clearing of ground vegetation, b) used transformer oil, c) geological safety, soil erosion and landslides, d) leakage during storage and erection of switchgear, e) noise and vibration.</p> <p>Implications would be on construction and electrical safety, transformer oil spillage; Effects on water bodies, environmental sensitive locations due to siting of sub-stations; impacts on existing drainage pattern and land use; tree felling and location of sensitive sites (physical, cultural and religious sites of importance) could be a possibility; Debris disposal and solid waste disposal during construction phase; E-waste</p>	<p>HPSEBL and HPSLDC</p>
<p>RA 3: Strengthening the institutional capacity and governance of state power utilities to achieve improvements in environmental, financial and operational performance</p> <p>(a) Strengthening Fiduciary Systems of the power sector utilities in HP – DLI7.</p> <p>(b) Strengthening systems for monitoring & evaluation (M&E) of environmental and social policies across the power</p>	<p>No adverse social implication</p> <p>Positive social implication with adoption of a uniform policy and procedures on social risk management aligned with national regulations and international standards; Development of utility specific guidelines for screening and scoping of social risks will help in improved planning, implementation and monitoring at sub-project level; Strengthening the Institutional systems to improve benefits sharing mechanism for utilisation of the Land Area Development Fund with affected people and local government; establishing clear procedures</p>	<p>Strengthening of evidence based IT enabled dashboard for an integrated state level reporting and monitoring system at DOE to bring integration of environmental management milestones. This system will integrate all utilities under one platform that will further strengthen addressal systems of environmental risks, management and mitigation actions uniformly. This will also integrate web linked integration on related environment and social activities of e-flow, muck management and CAT Plan with HPPCB, HP Forests.</p>	<p>DoE and All Implementing Agencies</p>

DLI Head	Social Implications	Environmental Implications	Agency
<p>sector of the state – DLI 8</p>	<p>to engage with communities, assess and mitigate social risks, and provide opportunities to local to access benefits.</p> <p>Deployment of staff and consultants and systems development for efficient design, implementation and monitoring to avoid, minimise and mitigate social risks. With special focus on women, they will be able to access opportunities for technical career growth.</p> <p>Preparing a comprehensive Capacity building Plan with focus on specific social development themes and topics, processes and procedures for operationalization of assessing, designing and implementation of social risks and monitoring.</p> <p>Strengthen the MIS system for an integrated state level reporting system by all utilities on social risk management and mitigation for evidence-based monitoring and reporting.</p>	<p>Hiring and recruiting dedicated subject matter specialists/Environmental Engineers & well-defined work guidelines supported with consultants (in the areas of bio-diversity, fisheries, dam safety etc.) to strengthen the Environment Management Capacity of DoE and similar skills in all utilities (except HPPCL)</p> <p>Capacity enhancement of existing staff with specific trainings and skill improvements focused on incorporating environmental screening, impacts and mitigation measures which will also include environmental audits and sustainability protocols to benchmark projects from environmental, safety and climate aspects.</p>	
	<p>Further detailed E&S assessment based on the gaps analysis of existing Cumulative Environmental Impact Assessment (CEIA) study of Beas basin for comprehensive Strategic environmental and social analysis to recommend environmental, social and climate change-based sustainability benchmarking protocols for existing, pipeline and new projects is planned under this.</p> <p>A roadmap to be develop for a comprehensive strategic policy document for basin wide environmental and social sustainability protocols in the Power Sector.</p> <p>Capacity strengthening to train staff on benchmarking protocols and regular sustainability monitoring and reporting.</p>		DoE + HPPCL

1.7.3 Institutional and systems Assessment

All implementation agencies have some mechanism for management of Environmental and Social issues. However, there is a gap in overall capacity for managing the risks in totality. The assessment by agency is summarized below:

a. DoE

- The Directorate of Energy is responsible for framing policy and Procedures for bidding and allotment of Hydro Electric Projects above 5MW. The Directorate is headed by the Director (Energy) and looks after the Allotment, Monitoring, Grant of Techno Economic Clearance (TEC), these projects. Additionally, issues related to safety, environmental, social and their compliance, monitoring and management are looked after by this organization.
- DoE also has the mandate for implementation through *Electricity Act; Energy Conservation Activities; Clean Development Mechanism; Hydro Power Policy; Local Area Development Fund Policy; R & R Plans; and HP Energy Conservation Building Code & Rules*. Officers at level of Superintending Engineer and Executive Engineer have been co-designated to monitor and track any dam safety and other non-compliances on environmental conditions as per approved as per environmental management plans of the projects during implementation of the hydro power projects. However, DOE lacks requisite specialist skills on environmental management, biodiversity, occupational health & safety and fisheries which are needed to monitor and advise government. The integrated monitoring system of environmental and social aspects of all utilities as per their project milestones is also required at DoE level.
- Since DoE acts on behalf of Government of HP, DoE needs to act as nodal department on environmental and social policy procedures, guidelines, scoping and monitoring.
- DoE has a comprehensive communication, stakeholder mapping, and engagement strategy, and a GRM.
- DoE also tracks provisions in the project design and cost including a special provision of Local Area Development Fund (LADF) for the benefit of the local communities in the project area concurrent to project implementation.

b. HPPTCL

- There is an Environment and Social Cell (ESC) at the Corporate Level comprising 5 members to manage safeguard compliance. The General Manager (Projects) is the Head of ESC. In addition to that a Sr. Manager (co-designated for Environment & Social Safeguards), Dy. Manager (co-designated for Environment & Social Safeguards) and hired consultants (Environment and Social Safeguard) are the members of the ESC. ESC is supported by Senior Managers at field level in PIU.
- HPPTCL has hired Environment Consultant responsible to support Environmental Safeguard measures for the projects. At present environmental skills needed in the organization is on contract and need basis and there is gap at sites.
- Under its Environment and Social Safeguards Policy (ESSP), 2011, HPPTCL adopts a proactive route alignment approach, screens projects for social risks, carries out census and socio-economic surveys, consultations and prepares and implements RAPs. HPPTCL also has a GRM.

c. HPPCL

- HPPCL has a designated ESMU (Environmental and Social Management Unit), which undertakes scoping, and screening. HPPCL has a full-fledged E&S Cell at their corporate office and E&S staff members at the field offices. The cell scrutinizes all documents and ensures timely clearance and compliance from concerned authority. The ESMU look at

implementation of EMP. It also prepared R&R Plans for projects and supports their implementation.

d. HPSEBL

- HPSEBL has no special designated officer responsible to support Environmental Safeguard measures for the projects. The Chief Engineer at their head quarter level is responsible for the implementation of Environmental Management Plan for all the works under its jurisdiction. Though the PIU is responsible for the E&S functions, there is no designated Chief Safety Officer. As of now, it is the Executing Officers in the 232 sub-divisions are responsible for addressing environmental and safety concerns within their jurisdiction.
- HPSEBL has a Public Relation Unit for publicity and coverage of various activities of the HPSEBL in Press.
- HPSEBL has also developed a consumer satisfaction index for assessment.

e. HIMURJA

- HIMURJA does not take up either technical or environmental or social assessments for any projects. It does not have Social or Environmental Specialists as staff or consultants, does not have its own E&S framework, policies or reporting mechanisms. The projects under HIMURJA are categorized as “white” projects⁴ which means minimal E&S negative impacts and high E&S benefits. Thus, it has poor capacity to address environmental and social issues and their monitoring especially on commissioned small hydro projects.

1.7.4 Gaps in Institutional Performance

The assessment of the institutional setup and systems of all utilities has been done against each of the core principles. The analysis for each utility is detailed in the respective chapters and a consolidated summary is contained in Annexure 6. Based on this assessment, the following critical gaps in the performance of the institutions and its systems have been identified:

- **Gap 1:** Environmental and Social Policy Procedures (ESPP)ESSP in all utilities is not comprehensive. Currently the management of environmental and social risks is fragmented and inconsistent. Updated and strengthened ESPP is recommended to integrate all-encompassing uniform system on screening, managing and monitoring for an effortless execution of projects.
- **Gap 2:** DoE does not have any systems to monitor if E&S screening and scoping are done by Power Utilities/Departments at project levels. Similarly, information on the implementation on of Local area Development fund (LADF) is not available at the state level. The officials have additional charge of social management across all utilities, and the capacity development portfolio is not systematized for developing adequate skills in performing the responsibilities. There is a requirement to strengthen institutional capacity and response system in the utilities by hiring environmental and social specialists to guide environmental and social screening, implement measures for avoiding any negative impact, health and safety management and mitigation plans and the LADF. Strengthening capacity in key areas like biodiversity, aquatic and dam safety is essential at the HPPCL.
- **Gap 3:** The exiting cumulative impact analysis (CIA) and individual EIAs based environmental management plans of various interventions in the sector although addressing almost all parameters, need further strengthening on the issues related to changes in hydrological regime, downstream flows, territorial and aquatic biodiversity, etc. due to change of operational characteristics of bundled hydro pilot (e.g. potential hydropower peaking generation).

⁴PCB categorizes projects in four categories – red, orange, green and white

- **Gap 4:** Across all utilities issues of temporary adverse impacts, more specifically construction induced impacts and mitigation measures remains ad-hoc.
- **Gap 5:** Information on implementation of targeted schemes for Scheduled Tribes on any of the utility's projects is not available
- **Gap 6:** While all utilities have a functional GRM, documentation available on the same is scant. Whatever documentation is available is not sufficient to assess accessibility, responsive, trackability, efficiency and effectiveness of the GRM.
- **Gap 7:** Across all utilities, systems for tracking and reporting on sites incidents, labour conditions, compliance of labour laws, gender-based violence is lacking. There is also an absence of systems for risk assessment of labour influx and impact on host communities and ensuring that forced labour is not used in manufacturing of solar panels.
- **Gap 8:** There is a requirement to streamline and integrate reporting practices that will guide operational practices and report (a) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials used; (b) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards incorporating recommendations from District Disaster management Plans and other safety issues to mainstream climate resilience in project planning and operation; (c) emergency response systems and accident and incident reporting.
- **Gap 9:** Reporting and documentation on performance of utilities against key environment social indicators and outcomes is lacking. While many major environmental and social risks are being addressed by the utilities on their projects, there is a significant gap in documenting and reporting of their management. DoE lacks an all-inclusive environmental and social monitoring and management system, along the lines of good international industry practices (GIIP). There is a need for strengthening of evidence-based IT enabled dashboard for an integrated state level reporting and monitoring system at DOE that will integrate environmental and social management milestones of the projects/ activities implemented by all utilities including natural habitats and physical cultural resources data of the program and compliance to workers and public health & safety issues.

1.7.5 GENDER ANALYSIS

A study was also commissioned by the World Bank on 'Barriers and Opportunities for Women's Employment and Workforce Participation in Himachal Pradesh Power Sector' in 2022. The study was designed such that its key learnings would feed into this project. The objectives of the study were to analyse barriers and opportunities for women and recommend ways in which their employment, skillsets and workforce participation can be enhanced within the Himachal Pradesh Power Sector. The study findings show that women represent only 38.5% of the total employees in HP power utilities, including both permanent and outsourced staff. Of the total women employees in all agencies, approximately 65% represent non-technical staff, like human resources, finance and accounting, computer and data entry operators, customer relations and sales.

The HP power sector follows the state government's policy on recruitment which is merit-based and is thus applicable to both men and women aspirants, with no specific reservations or quotas for women. Further, although job postings are gender neutral and application fee is waived for female applicants, male centric terminologies in job descriptions can deter women from applying.

Women are also poorly represented in decision-making positions in executive, senior and mid-level grades⁵. In the last 5 years only 7 women employees have been promoted across all agencies. The

⁵ Women employees at HIMURJA comprise of only 5% of the total executive and senior level positions, 12% of the total staff at mid-level positions and 19% of total junior and entry level positions in comparison to male counterparts at each level of

representation of women as leaders in the utilities is also lower than their male counterparts.⁶ Further, women staff are particularly hampered by the lack of leadership and soft skills training as a standard progression norm.

The study found that there are many gaps in developing a work environment with women and family friendly provisions in the utilities. For instance, none of the entities have a formal policy for flexible working hours or child and day-care facilities. Apart from HPSEBL, none of the organizations provide office vehicles to work. None of the entities have resting rooms for women other than HPSLDC.

While all the surveyed establishments have an Internal Complaints Committee established as per the The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, awareness of what constitutes sexual harassment is low and other provisions that support the effective functioning of ICCs like complaint box, regular staff surveys and monitoring, helpline numbers etc are not operational in agencies. Discussions also revealed that committee members are not meeting regularly, nor do they record any proceedings of meetings undertaken. Knowledge on ICC and its guidelines were better understood in utilities like HPPCL and HPPTCL where the staff is exposed to the workings of externally funded projects by agencies like the ADB, AIIB and AfD etc.

The study also identified a number of supply-side challenges which limit women's enrolment in power and RE related STEM fields and engagement in power sector jobs. The barriers are mostly physical (location, flexible working hours), familial (mobility restrictions, awareness and knowledge), socio-cultural (cultural acceptability, requirements of on-site work, evening and night shifts, remote locations, male-dominated fields), financial and academic (low awareness, few colleges offering specialised RE programs).

The study also found that apart from DoE all utilities are running their apprenticeship programs under the provision of National Apprentice Promotion Scheme of the Ministry of Skill Development and Entrepreneurship, which are giving first hand exposure to aspiring youth. However, data, and in particular gender-disaggregated data on the implementation of such programs is not available for most utilities.

seniority. For HPPCL these numbers are slightly better with 13% women serving at the executive and senior level positions, 19% women at mid level and 10% in junior and entry level positions.

⁶ HPSEBL has women employees representing leadership positions. It has appointed 2 women leaders as board of directors, of which one is an independent woman director and another one is the director (civil-projects). While for utilities like HPSLDC, HPPTCL and HPPCL women in leadership and decision making positions as a percentage representation to total staff is in the range of 4-7%.

1.8 Recommendations

1.8.1 Program Exclusions

Under the Policy, activities that are judged to be likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people are not eligible for financing and are excluded from the Program. These activities are mentioned below:

- Activities which will bring or will be taken up in significant conversion or degradation of critical natural habitats i.e. ecologically sensitive areas, eco-sensitive zones, protected forests, reserved forests, Wildlife Sanctuaries and National Parks or critical cultural heritage sites like monuments, areas of religious importance, sacred grooves, etc;
- Any activity bringing significant land use conversion, air and water quality in the down stream, reduction or major daily fluctuation in downstream flow, sediment intrusions or erosion or soil contamination leading to significant adverse impacts on the health or safety of individuals, communities, or ecosystems;
- Land acquisition and/or resettlement of a scale or nature that will have significant adverse impacts on affected people, or the use of forced evictions;
- Large-scale changes in land use of prime agricultural land, grazing land, community forest land or access to land and/or natural resources;
- Any activity of hydro power project construction which will have adverse environmental impact implication or impacts covering large geographical areas, including trans boundary impacts, or global impacts such as greenhouse gas (GHG) emissions due to project-specific activities;
- Activities that are not consistent with the Legal/ Regulatory Framework of the country
- Activities which put permanent restrictions on access/ usage of resources
- Any activity that involves child labour (persons under 14 years of age in any activity and persons above 14 years and under 18 years of age in hazardous activities)
- Activities that would adversely affect places of cultural significance and protected historical/archaeological assets (both natural and human-made)
- Any activity that is not consistent with the project description at time of project negotiations, unless subsequently agreed to with the WB along with the appropriate level of social safeguards management

1.8.2 Program Action Plan

<i>Environmental and Social</i>			
Action Description	Gaps Identified	Mitigation Measures / Proposed Timelines	Responsibility
Adopt entity wise uniform E&S policies and procedures that align with National and state laws and sustainable development goals to manage social and environment risks	The policies vary across utilities that are not consistent with the subsequent amendments. Present system lacks uniform environmental and social management	ESPP is recommended to Integrate all-encompassing uniform system on screening, managing and monitoring for an effortless planning and execution of projects. 1. DoE to develop a ToR and mobilize the agency to review and update the policy and develop a uniform	DoE HPPCL, HPTCL, HPSEBL, HIMURJA and HPSLDC

Environmental and Social			
Action Description	Gaps Identified	Mitigation Measures / Proposed Timelines	Responsibility
Review of the Institutional mechanism on utilization of LADF, identify gaps and recommend reforms to unlock the funds and monitor its utilization	<p>procedures and varies among utilities and activities and largely dependent on regulatory or funding requirements. Also, the current risk management mechanism is activity and utility specific and not adopted as system uniformly</p> <p>The LADF funds are underutilized due to lack of systems to identify eligible people, area and gaps in institutional mechanism, rules on responsibilities and monitoring on</p>	<p>policy that addresses the specific variations of each utility– Year 0</p> <ol style="list-style-type: none"> Action Plan developed to update ESPP – Year 2 Updated and uniform ESPP adopted by all Implementing agencies – Year 4 Scope of work for further detailed E&S assessment based on the gaps analysis of CEIA study of Beas basin approved by (HPPCL) – Year 1 E&S baseline assessment of Beas basin with recommendation and protocols completed (HPPCL) Government Order issued for adoption of basin wide E&S Protocols and benchmarking of projects implemented by HPPCL. Prepare ToR and mobilise the agency (year 1) for review and analyse the LADF policy and Institutional mechanism to identify bottlenecks in achieving the objective of the LADF and develop appropriate action plan to implemented from Year 3 onwards - DoE. 	
<p>Capacity Development for E&S risk management:</p> <ol style="list-style-type: none"> Hiring of environmental and social experts in HPSEBL, HPPTCL, DoE, HPPCL and Himurja as staff Training need assessment, prepare training calendar including target group, and its implementation and develop the ICT tool for monitoring and creating the data 	<p>HPPTCL and HPSEBL have ad-hoc arrangement to meet the requirements of funding agencies. HPPTCL, HIMURJA and DOE have no E&S staff. Need for an IT enabled dashboard for an integrated state level evidence based E&S monitoring and reporting at DOE .</p>	<ol style="list-style-type: none"> Mobilize dedicated environment specialist, social development specialist and gender specialist– Year 1 Prepare ToR and mobilize agency (year 1) for capacity needs assessment and develop HR policy and comprehensive training plan for three years for implementation. HPSEBL , HPTCL and DOE will hire / recruit Environmental Specialist on regular rolls (Year-1). DOE/ HPPCL to hire need based subject matter specialists in the areas of biodiversity, fisheries, dam safety etc. to strengthen the 	<p>DoE HPPCL HPPTCL HPSEBL HIMURJA</p>

Environmental and Social			
Action Description	Gaps Identified	Mitigation Measures / Proposed Timelines	Responsibility
base of trained personnel. 3. Integrated Environmental and social Monitoring system		Environment Management Capacity of DoE and HPPCL. 5. DOE to develop web-based dashboard system for integrated monitoring of environmental and social risk management by all utilities and tracking E&S performance (Year 2).	

1.8.3 Implementation Support Plan

Activities	Responsible Agency	Timeframe
Award the contract including the Terms of Reference to address the gaps for development of a uniform Environment and Social and Policies and Procedures and for utilization of LADF (ESPP)	DOE, HPPCL, HPPTCL, HPSEBL HIMURJA	Within 12 months from project effectiveness
Award the contract including the Terms of Reference for Comprehensive Cumulative environmental and social comprehensive study as per the gap analysis completed for Beas Basin in agreement with the World Bank.	DoE, HPPCL	Within 12 months of project effectiveness
Hiring of at least one environmental and one social staff	DOE, HPSEBL, HPSLDC, HPPTCL, HIMURJA	Prior to project effectiveness
Enhance integrated Basin wide Catchment area and environmental flow for MIS development with Web based M&E System	DOE, HPPCL,	Utility-wise MIS protocols developed, and pilot tested within 2 years from project effectiveness
Hire specialized skills on biodiversity, occupational health and safety and fisheries	DOE and HPPCL	Within 12 months of the project effectiveness
Adopt the recommendations of the Comprehensive Cumulative Environmental and Social for basin wide E&S protocols and benchmarking projects from environmental, social, and technical sustainable parameters	DOE/ HPPCL	Within 4 years of project effectiveness

1.8.4 Opportunities for improving Environmental and Social System during the project

Recommendations	Responsible Agency
Adopt uniform E&S policies and procedures that aligns with National and state laws and International standards to manage environment and social risks and across entities to design, implement and monitor avoidance, minimization, and mitigation of adverse impacts.	All agencies by

Recommendations	Responsible Agency
A comprehensive gap analysis of existing cumulative environmental and social assessments is required to develop a road map for comprehensive strategic document for basin wide environmental and social sustainability in future including reformist actions on policies and institutions, if needed. Adopt recommendations of the Comprehensive Cumulative Environmental and Social Study for benchmarking basin wide E&S protocols and benchmarking projects from environmental, social and technical sustainable parameters	DoE, HPPCL
Elements of Environmental impacts envisaged by way of climate change, safety and disaster management needs to be included in the protocols of all energy utilities and to be monitored and tracked.	All agencies
For Capacity Development of E&S risk management following actions will be taken up as part of the program (a) Hiring of key Environmental and Social expert with independent charge as staff, including need based hiring of contractual specialized skills on bio-diversity, aquatic ecology and dam safety (b) training need assessment, prepare training calendar including target group and its implementation.	DoE, HPPTCL, HPSEBL
Adopt web-based Monitoring and Evaluation (M&E) systems to monitor E&S risk management for evidence-based reporting as per their respective project activities, including basin wide CAT Plan management systems and downstream flows.	All agencies
Safety officers/ personnel responsible for implementation of mitigation measures on handling, storage, and disposal of solid/hazardous wastes, disaster mitigation & emergency response and contingency should be separately engaged and trained demystifying risks in case systematic approach is not adopted.	All agencies
Existing Institutional support needs to be augmented with resources for personnel, funds, expertise, and overall support to manage E&S impacts and risks and enhance opportunities to achieve E&S outcomes	All agencies
Develop guidelines, procedures, and indicators to track performance on overall social risk management, land management, benefit sharing, stakeholder engagement, labour law compliance, social inclusion, gender mainstreaming and capacity development	All agencies
An integrated GRM which uses multiple mediums (phone, postal, email, mobile app, face to face) to launch complaints, track them, have a responsibility matrix, escalation mechanism, redressal timelines and closure protocols.	All agencies
Streamline Labour Management Procedures, Labour Management Plans and Labour Influx Management to ensure safety of individual, direct, indirect (via supply chain as possible), contracted, sub-contracted and community labour as well as management of risks in case of labour influx and impact on host communities.	All agencies
Integrated reporting systems against clear indicators to be developed for the power sector so the performance on land management and benefit sharing can be tracked across utilities	All agencies
Track implementation of schemes related to Scheduled Tribes on the utility's projects	All agencies
Streamline and integrate reporting practices that will guide operational practices and report (a) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials used; and (b) reconstruction or	All agencies

Recommendations	Responsible Agency
<p>rehabilitation of infrastructure located in areas prone to natural hazards incorporating recommendations from District Disaster management Plans and other safety issues to mainstream climate resilience in project planning and operation (c) emergency response systems and accident and incident reporting</p>	
<p>Reintroduce apprenticeship programme and commit to a minimum % of women interns; Frame advertisements with a gender responsive content and appeal- provide information on available safety security and family friendly provisions; Consider a sector/state policy on minimum % quota for women applicants in recruitment and selection, without compromising on quality of candidate. These can be tracked through % of women apprentice trained annually and % of women applicants for new job openings. Strengthen implementation of Internal Complaints Committee; Ensure Gender Responsive Content and Appeal in Power Sector Job Descriptions; Formalize and Provide More Women and Family Friendly Provisions at Work; Conduct Confidence Building, Motivational and Leadership Trainings at all Levels/Grades; Outreach and Awareness Generation for Enrolled Students/Recent Graduates on Skill Training and Counseling Support Provided by the State’s Energy Sector; Provide Refresher Trainings to Women Staff in Smart and New Age Technologies; Set up a Gender Budget Cell or Allocate Separate Funds for the Progression of Women Staff.</p>	<p>All agencies</p>

SECTION 2: ENVIRONMENTAL AND SOCIAL ASSESMENT

2.1 Policy and legal framework: relevance to Sector program

2.1.1 Social Policy and legal framework

This section discusses relevant legislations applicable for the program. It encapsulates both national and state laws and policies covering relevant aspects such as land management and livelihood, social inclusion, citizen engagement, gender and women's security, employment, and social welfare of workers. The assessment revealed that applicable national and state laws and policies provide adequate safeguards to manage social risks that emerge from the proposed operation. These have been explained below:

- I. The (notified) **Himachal Pradesh Swaran Jayanti Energy Policy (2021)** aims at achieving social benefits over and above access to energy: (i) promote investment, employment generation and skill enhancement; (ii) establish core technical competence in professionals to initiate and sustain use and effective management of newer energy applications; (iii) protect the rights of the local inhabitants for irrigation and drinking water requirements and maintain riverine eco system, by ensuring availability of downstream flow of water and maintain Free Flow/ Riparian Distance between two consecutive/ cascading projects; and (iv) promote goods and services manufactured/available in the State in the Generation, Transmission and Distribution segments of Power Sector under the Make in India Initiative and *Aatmanirbhar Bharat Abhiyan*.
- II. While the program will have physical infrastructure development, may not involve large scale private land acquisition. In cases of **land acquisition**, central and state legislations such as the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR) and Himachal Pradesh Rules, 2015 are applicable. In addition, policies of Institutions such as HPPCL's Resettlement and Rehabilitation Plan⁷, 2009 and HPPTCL's Resettlement, Relief, Rehabilitation and Compensation Policy, 2011 (RRRCP) have also been framed to safeguard the interests of the project affected persons through the project cycle for the investments for infrastructure development. However, policies governing social safeguards for energy sector projects would require updation to meet the requirements of the current legislations on land acquisition, resettlement, and rehabilitation. For instance, the central RFCTLARR Act, 2013 covers minimization of resettlement impacts, higher rates of compensation, grievance redressal and disclosure requirements, monitoring systems which are not addressed under these sectoral policies.
- III. The Tariff Policy, 2006 and Himachal Pradesh Land Area Development Fund (LADF) provides for benefit sharing mechanisms for people adversely affected by hydropower projects. This intends to provide a regular stream of revenue for income generation on a sustained and continuous basis.
- IV. Most policies in Himachal Pradesh secure the rights and privileges of marginalized groups (SC, ST, OBC and BPL), particularly during recruitment in government jobs and admissions in higher educational institutions. It also recognizes the special rights and needs of persons with disabilities. Despite free or highly subsidized education (including professional courses) for women, **there are no government policies on reservation in services for women in the state**, as seen in other states and at the Centre. The state however has aligned all service rules with

⁷Approved by the Government of Himachal Pradesh which is yet to be aligned with the RFCTLARR Act, 2013

the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013

- V. Himachal Pradesh has also implemented some schemes and programs at the secondary education level in STEM⁸ fields such as the Atal Tinkering Lab Scheme and has recently approved a Science Technology & Innovation (STIP) Policy for fostering scientific research, innovation, and technological competence among youths.
- VI. Further, legislations like the Right to Information Act (RTI) and Himachal Pradesh Services Guarantee Act provide **transparency and accountability** by making the process of public service delivery such as access to electricity more reliable, affordable, and efficient.
- VII. To safeguard the workforce under the program, the **four Labour Codes** which amalgamate 44 Central labour laws into four codes on wages, industrial relations, social security, and safety and working conditions were reviewed. Labour being a subject in the Concurrent List of the Constitution, Himachal Pradesh is one of the first few states to have framed the State Rules for all four codes: Code on Wages (Himachal Pradesh) Rules, 2021, Industrial Relations (Himachal Pradesh) Rules, 2021, Social Security (Himachal Pradesh) Rules, 2021 and Occupational Safety, Health and Working Conditions (Himachal Pradesh) Rules, 2021.

I. Land Management and Livelihood			
S. No	National and State Laws for Social management	Overview of key provisions	Applicability to PforR
1.	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013	<p>Emphasizes social assessment and resettlement planning even prior to issuance of the preliminary notification and proposes to provide arrangement of R&R benefits along with the compensation package. Some of the highlights are as follows:</p> <ul style="list-style-type: none"> • Offers compensations up to 4 times the market value in rural areas and 2 times the market value in urban areas. • No displacement or dispossession until full payment of compensation and R&R benefits are made and alternative sites for the resettlement and rehabilitation have been prepared. 	Applicable if private land is acquired for project facilities and/or if someone is displaced and/or livelihoods are affected.
2.	Himachal Pradesh Right to Fair Compensation and Transparency in Land Acquisition,	<ul style="list-style-type: none"> • Requires the consent of no less than 70 percent and 80 percent respectively (in both cases) of those whose land is sought to be acquired in case of PPP or private projects. • Safeguard food security and to prevent arbitrary acquisition, the Act directs States to impose limits on the area under agricultural cultivation that can be acquired. 	When the 2013 Act is applicable, the HP Rules are to follow. ⁹

⁸ Science Technology Engineering and Mathematics

⁹ As per the requirement of this Act and Rules, Land Acquisition, Rehabilitation and Resettlement Authorities have been setup in each district of Himachal Pradesh (Notification No, Rev-B A (3)- 3/2014, Dated 21st November 2016)

	Rehabilitation and Resettlement (Social Impact Assessment and Consent) Rules, 2015	<ul style="list-style-type: none"> • In case land remains unutilized after acquisition, the Act empowers states to return the land to the owner. • No income tax shall be levied, and no stamp duty shall be charged on any amount that accrues to an individual. • Specifies some additional provisions for SC and STs. 	
3.	Himachal Pradesh Village Common Land Utilization Act, 1974 (Amended vide Act No.18 of 1981.)	<p>Streamline the utilization of village common lands popularly known as 'Shamlat Land'. As per Section 8A of this Act, the vested land can be transferred to other Departments of the State Government or can be given on lease to an individual in connection with development activities of the state. However, this provision was subject to the condition that this will not reduce the land to less than 50 per cent reserved for common purposes for the inhabitants of an estate.</p> <p>The Collector may direct the landowners of the land after it is vested in the Government to hand over the possession of such lands within ten days from the service of the orders. If they refuse or fail to hand over the possession without a reasonable cause, the collector may take the possession of such lands by force, if necessary.</p>	Applicable for any project activities that require land.
4.	HPPCL's Resettlement and Rehabilitation Plan, 2009	The objective of the Plan is to compensate the families affected adversely by construction of the project. HPPCL has adopted various relief and rehabilitation strategies for the project affected families. These include suitable and adequate compensation to ensure replacement of assets lost or acquired, R&R benefits to all project affected families (PAFs) with provision of additional benefits to ST/SC households, guidance for better living conditions and livelihood, primary and secondary employment for PAFs, 100 units of free electricity for 10 years and 1% of the revenue generated from the project will be distributed among the PAFs.	The policy is applicable for HPPCL's activities related to large hydro power projects (above 5MW) to supply to GRID and generators.
5.	HPPTCL's Resettlement, Relief, Rehabilitation and Compensation Policy, 2011 (RRRCP)	It lays down the guiding policy of HPPTCL for preparation of project specific R&R Plans and its implementation. This policy has been prepared keeping in view the provisions contained in the R&R Policy notified by Govt. of HP vide notification No Rev(PD)F(5)-1/1999 dated 27-4-06; National Rehabilitation and Resettlement Policy (NRRP) 2007; Indian Telegraph Act, 1885; Indian Electricity Act, 2003; HP Hydro Power Policy, 2007; Safeguarding policies of multilateral funding agencies; and R&R Plan of Himachal Pradesh Power Corporation Limited (HPPCL) and general safeguarding principles.	The policy is applicable for HPPTCL's core activities related to transmission lines and installation of power substations and creation of ancillary/associated facilities.
6.	Tariff Policy 2006 (Para 5.1	The Tariff Policy recognizes 13% of free power to the State Government, and energy corresponding to 100 units of	Benefit sharing mechanism in cases

	(e) (iii); Amended vide Ministry of Power Resolution, dated 31st March, 2008)	electricity to be provided free of cost every month to every Project Affected Family notified in the designated resettlement area/ projects area for a period of ten years by the State Government	of hydropower and other renewable energy projects.
7.	Local Area Development Fund 2011 (revised in 2015)	Project developers shall contribute additional 1% free power after commissioning of hydro-power projects, which will be earmarked for the Local Area Development Fund (LADF) to provide regular stream of revenue for income generation on a sustained and continuous basis. The revenue generated out of sale of 1% additional free power shall be disbursed among the beneficiary families. 50% of LADF will be distributed among all families in the project affected areas, of which BPL families will get a higher proportion. The remaining 50% of LADF will be divided among families displaced due to land acquisition.	Benefit sharing mechanism in cases of hydropower and other renewable energy projects.

II. Citizen Engagement			
S. No	National and State Laws for Social management	Overview of key provisions	Applicability to PforR
1.	73 rd and 74 th Constitutional Amendment Act, 1993	The Act was enacted to ensure effective involvement of the Panchayati Raj Institutions in the local administration and developmental activities. HP Government may entrust to the Gram Panchayat preparation of plans and implementation of schemes for economic development and social justice including those enlisted in Schedule II of the Act which covers rural electrification including distribution of electricity.	Prior to commencement of project activities in a particular area, the NoC of the gram panchayat of that area is needed.
2.	Himachal Pradesh Panchayati Raj Act, 1994	Gram Sabhas and Panchayats have been vested with greater powers, which include approval of plans, programmes and projects for social and economic development, mandatory consultation before acquisition of land in the Schedule Areas for development projects and before resettling or rehabilitating persons affected by such projects in Scheduled Areas.	
3.	Panchayats (Extension to Scheduled Areas) Act, 1996 (PESA)	Some parts of Himachal Pradesh (particularly Lahaul and Spiti districts, Kinnaur, Pangi tehsil and Bharmour sub-tehsil in Chamba district) fall under the fifth schedule area and are thus, governed by this Act and Rules.	If land is required for project activities in the fifth schedule areas, approval of the gram sabha and mandatory consultation needs to be held prior to acquisition of land.
4.	Himachal Pradesh Panchayati Raj (Extension to the Scheduled Areas) Rules, 2011	Central Act used to secure access to information under the control of public authorities. To promote transparency and accountability in the working of every public authority, it mandates the constitution of a Central	
5.	Right to Information Act, 2005		Relevant and applicable to all government institutions under the program.

		Information Commission and State Information Commissions.	
6.	Himachal Pradesh Public Services Guarantee Act, 2011	Enacted by the Government of Himachal Pradesh to provide time bound Citizen Centric Services to the public of the State. Currently, 20 departments are providing 119 Services notified under the PSG Act, 2011. The Act enforces accountability of the designated officers for any lapse/deficiency in their service.	Services (supply of electricity) provided by HPSEBL needs to be timebound and efficient, as per the requirements of this Act.

III. Social Inclusion			
S. No	National and State Laws for Social management	Overview of key provisions	Applicability to PforR
1.	The Constitution of India (Articles 15,16 and 46, 275, 330, 332, 335 340 and 342)	The Indian Constitution prohibits any discrimination based on religion, race, caste, sex, and place of birth, refers to the equality of opportunity in matters of public employment, directs the state to promote with special care the educational and economic interests of the weaker sections of the people, particularly of the Scheduled Castes and the Scheduled Tribes and directs the state to protect them from social injustice and all forms of exploitation.	Relevant to the overall Program to ensure no discrimination and exploitation and safeguarding the vulnerable
2.	The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989, and Rules, 1995	Safeguards Scheduled Castes and Scheduled Tribes against wrongful occupation or cultivation of any land or premises or residence or enjoyment of rights and services accessed/owned/allotted/notified for them	Relevant to the overall Program to ensure that SC and ST are not harmed or negatively impacted.
3.	Notifications on Reservations in Services	Service Rules, Regulations and Notifications issued by the government of Himachal Pradesh provides reservation in all government services to married daughters and granddaughters of freedom fighters (2%), persons with benchmark disabilities (4%), persons belonging to scheduled tribes (7.5% in Class-I & II or 5% in Class-III & IV posts), scheduled castes (5% in Class-I & II or 22% in Class-III & IV posts) and other backward castes (12% in Class-I & II and 18% in Class-III & IV posts) including those belonging to below poverty line, domiciled in Himachal Pradesh.	Relevant and applicable to all government institutions under the program.
4.	Rights of Persons with Disabilities Act, 2016	The Act requires all establishments to frame and publish an Equal Opportunities Policy. Further, every Government establishment shall reserve, not less than four % of the total number of vacancies in the cadre strengthening each group of posts for persons with benchmark disabilities.	Relevant to the overall Program to ensure inclusion and participation of PwD

IV. Gender¹⁰			
S. No	National and State Laws for Social management	Overview of key provisions	Applicability to PforR
1.	The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013	An act that aims at providing a sense of security at the workplace that improves women's participation in work and results in their economic empowerment. It requires an employer to set up an "Internal Complaints Committee" (ICC) and the Government to set up a 'Local Complaints Committee' (LCC) at the district level to investigate complaints regarding sexual harassment at workplace and for inquiring into the complaint in a time bound manner. Applicable for organizations and its branches with more than 10 employees. Notification was issued in 2014 by the Government of Himachal Pradesh to align all service rules [CCS (Conduct) Rules, 1964 and CCS (CCA) Rules 1965] with the Sexual Harassment at the Workplace Act, 2013.	Relevant and applicable to all government institutions and management agencies/firms under the program.
2.	Himachal Pradesh State Commission for Women Act, 1996	The main mandate of the commission as per the Act is to improve the status and dignity of women in society, to investigate into and take or suggest suitable measures against practices derogatory to women, to effectively monitor and implement laws affecting women and to advise the State Government.	For investigation and examination of all matters relating to the safeguards provided for women under the constitution and other laws.
3.	National Policy for the Empowerment of Women 2001	Adopted in 2001, Policy states that all forms of violence against women, physical and mental, whether at domestic or societal levels, including those arising from customs, traditions or accepted practices shall be dealt with effectively with a view to eliminate its incidence	Institutions and mechanisms/schemes for assistance will be created and strengthened for prevention of such violence, including sexual harassment at workplace; for the rehabilitation of the victims of violence and for taking effective action against the perpetrators of such violence.
4.	Draft National Policy for Women in 2016	Policy to further the mission of equal rights and opportunities for women in family, community, workplace, and governance	

V. Labour Welfare and Working Conditions

¹⁰ India has signed and ratified Convention on Elimination of Discrimination against Women (CEDAW). Since then, the National policy for Women and other policies and amendments on acts has been reflecting the principles highlighted in the related international conventions (<http://treaties.un.org/>).

The Dowry Prohibition Act, 1961; The Immoral Traffic (Prevention) Act in 1956; The Protection of Women from Domestic Violence Act, 2005; The Protection of Children from Sexual Offences Act, 2012; Indecent Representation of Women (Prohibition) Act-1986, Commission of Sati (Prevention) Act-1987 are some other Gender Specific Laws in India.

S.No	National and State Laws for Social management	Overview of key provisions	Applicability to PforR
1.	Code on Wages, 2019	The Code on Wages subsumes the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Payment of Bonus Act, 1965 and Equal Remuneration Act, 1976. The Code guarantees minimum wages and provides for equal wages to all genders. The draft Himachal Pradesh Rules for the Code have been notified in July 2021.	Relevant and applicable to all government institutions and management agencies/firms under the program.
2.	Code on Social Security, 2020	The Code subsumes nine central labour laws. These laws are the Employees' Provident Funds and Miscellaneous Provisions Act, 1952; Payment of Gratuity Act, 1972; Employees' Compensation Act, 1923; Maternity Benefit Act, 1961; Employees' State Insurance Act, 1948; Workers Cess Act, 1996; Employees' Provident Funds and Miscellaneous Provisions Act, 1952; Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959; Cine Workers Welfare Fund Act, 1981; Building and Other Construction Workers' Welfare Cess Act, 1996 and Unorganized Workers' Social Security Act, 2008. The Code extends social security to all employees and workers either in the organized or unorganized or any other sectors. The draft Himachal Pradesh Rules for the Code, although framed are yet to be notified.	Relevant and applicable to all government institutions and management agencies/firms under the program.
3.	Occupational Safety, Health and Working Conditions Code, 2020	The 2020 Code subsumes thirteen laws, including The Contract Labour (Regulation and Abolition) Act, 1970, The Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 and The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996. The Code regulates the employment and conditions of service of building and other construction workers and to provide for their safety, health, and welfare measure and for other matter connected therewith or incidental. The draft Himachal Pradesh Rules for the Code, although framed are yet to be notified.	Relevant and applicable to some activities under the program such as construction related activities, operation of sub-stations, T&D, etc.
4.	Industrial Relations Code, 2020	The Industrial Relations Code subsumes the following enactments: The Trade Unions Act, 1926; The Industrial Employment Standing Orders Act, 1946 and The Industrial Disputes Act, 1947. The code protects the rights of workers to form unions, to minimize the friction between the employers and workers and to provide provisions for investigation and settlement of industrial disputes. The draft Himachal Pradesh Rules for the Code, although framed are yet to be notified.	Relevant and applicable to all government institutions and management agencies/firms under the program.

5.	Child Labour (Prohibition and Regulation) Act, 1986	To protect the interest of children below the age of 14 so they are not employed in certain occupations. And to regulate the conditions of work of children in certain other employments.	Relevant and applicable to all government institutions and management agencies/firms to prohibit exploitation of children.
6.	Bonded Labour System (Abolition) Act, 1976	To regulate forms of forced labour.	Relevant and applicable to construction, operation, and maintenance activities for T&D, Hydropower, etc.

VI. Other policies relevant to the Program			
S.No	National and State Laws for Social management	Overview of key provisions	Applicability to PforR
1.	Electricity Act, 2003	The Act seeks to promote competition, protect the interest of the consumers, tariff rationalization, removal of subsidies, strengthening the regulatory institutions and providing indiscriminate open access to different users.	All utilities establishing, operating, and maintaining generating stations, sub-stations and dedicated transmission lines must ensure compliance with this Act
2.	Himachal Pradesh Power Transmission Corporation Limited Vigil Mechanism Policy, 2016	The policy seeks to provide protection to whistleblowers and lists procedures for protected disclosures, which will be addressed by the Chairman of Audit Committee/Vigil Mechanism Committee of the Company for investigation.	Ensures transparency and efficient redressal of any misconduct in HPPTCL, which is an implementing agency under the program.
3.	HPPTCL's Environmental and Social Safeguards Policy (ESSP)	The policy's goal is to ensure that development of power transmission system network is done in an environmentally and socially sustainable manner and to bring clarity and transparency about it with public disclosure. The ESSP was developed to address the environmental and socioeconomic issues arising from its activities guided by the basic principles of Avoidance, Minimization and Mitigation. The ESSP outlines HPPTCL's approach and commitment to deal with environmental and social issues relating to its transmission projects. The main aim of ESSP is to move away from the classical cost-benefit approach to the larger realm of Corporate Social Responsibility, while mainstreaming the environmental and social concerns in its operations.	Applicable for any activities related to the program, such as the smart-grid project. The ESSP is applicable for HPPTCL's core activities related to transmission lines and installation of power substations and creation of ancillary/associated facilities.
4.	Himachal Pradesh Hydro Power Policy	The objectives of the policy are to (a) develop local area by creation of Local Area Development	Relevant and applicable to renewable energy

	2006	Committee financed through Power Projects; (b) provide access of electricity to all households and to protect the interest of consumers; and (c) protect the rights of local inhabitants for irrigation and drinking water requirement.	projects as well as small hydropower projects (SHPs) up to a capacity of 5 MW, implemented by HIMURJA.
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2.1.2 Environmental Policy and legal framework

This section summarises the relevant legislations and policies applicable for the program and sums up both national and state laws and policies covering relevant. The assessment revealed that applicable national and state laws and policies provide adequate safeguards to manage the expected environmental risks that may arise from the proposed operation. These have been discussed as under:

- i. Over the last 15 years, there has been a paradigm shift in the energy scenario of the country. The country is moving towards renewable energy i.e. total green energy as per Paris agreement signed in December 2015. The new (notified) **Himachal Pradesh Swaran Jayanti Energy Policy (2021)** has a vision of making the state of Himachal Pradesh a leader in hydro power development and to diversify the state's green energy portfolio. The new policy framework aims at providing an affordable, reliable, and quality power to the consumers round the clock, throughout the year, mitigate the social, economic and environmental impacts and take care of various mandates of the Electricity Act, 2003 which seeks to promote competition, protect the interest of the consumers, tariff rationalization, phasing out of subsidies, strengthening the regulatory institutions and providing indiscriminate open access to different users.
- ii. While the Electricity Act does not provide a definition of renewable energy, there are other legislation and policies at both central and state level providing the definition of renewable energy sources. Among these, the Central Electricity Regulatory Commission (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations 2017 define 'renewable energy' as grid quality electricity generated from renewable energy sources. The term 'renewable energy sources' has been further defined to mean small hydro, wind, solar including its integration with combined cycle, biomass, biofuel cogeneration, urban or municipal waste and other such sources as may be approved by the MNRE. Also, by way of office memorandum dated 8 March 2019, the MOP has now classified hydro power project stations with a capacity of more than 25MW as a renewable energy source.
- iii. At central or federal level, the Tariff Policy and the National Electricity Policy 2005 broadly encourage energy from renewable sources. The MNRE launched NSM, the National Offshore Wind Energy Policy, and the Policy for Repowering of the Wind Power Projects as energy source specific policies.
- iv. The GOI has provided various tax and fiscal incentives to electricity generated from specific energy sources such as accelerated depreciation, etc. There are incentives available to renewable power projects at state level as well. Many of these states have specific policies for the source of energy (such as separate policies on wind and solar), which have high potential in a particular state. Through these policies, the state governments grant various fiscal incentives such as exemption of electricity duty, exemption from cross-subsidy surcharge, exemption from payment of stamp duties and land registration charges and exemption from transmission and distribution charges for wheeling of power.
- v. There are no separate bodies or framework for disputes relating to renewable energy in

particular. Jurisdiction over interstate and intrastate electricity regulatory issues is exercised by the CERC and SERCs, respectively. The CERC has the power to adjudicate upon disputes involving generating companies (either owned or controlled by the GOI or that have entered into a composite scheme for generation and sale of electricity in more than one state) or transmission and trading licensees with respect to determination of tariff and regulation of inter-state transmission and trading of electricity. SERCs have the power to adjudicate on disputes between licensees and generating companies within their respective jurisdiction.

- vi. The main acts that have a bearing on the working of the different utilities are: (a) HP Hydropower Policy 2007; (b) National Forest Policy, 1988; (c) Environment Protection Act, 1986 (d) EIA Notification 2006; (e) the Water (Prevention and Control of Pollution) Act, 1974; (f) the Water Cess Act, 1977; and (g) the Air (Prevention and Control of Pollution) Act, 1981 among others. The law in respect of management of forest and biodiversity is contained in (a) the Indian Forest Act, 1927; (b) the Forest (Conservation) Act, 1980; (c) the Wild Life (Protection) Act, 1972; and (d) the Biodiversity Act, 2002.
- vii. Further, different utilities have their own environment safeguards policies in place, like HPPCL’s Environment Safeguards Policy for Hydro Power Projects, HPPTCL’s Environment and Social Safeguards Policy, etc.

I. Environment Protection			
S. No	National and State Laws for Environmental management	Overview of key provisions	Applicability to PforR
1.	The Environmental Impact (EIA) Notification 2006 and its amendments	EIA Notification 2006 is used as a major tool for minimizing the adverse impacts of rapid industrialization on the environment and for reversing those trends which could cause climate change in the long run. EIA Notification of 2006 has decentralized the environmental clearance projects by categorizing the developmental projects in two categories, i.e., Category A (national level appraisal) and Category B (state level appraisal) . Category A projects are appraised at national level by Impact Assessment Agency (IAA) and the Expert Appraisal Committee (EAC) and Category B projects are appraised at state level. State Level Environment Impact Assessment Authority (SEIAA) and State Level Expert Appraisal Committee (SEAC) are constituted to provide clearance to Category B process.	EIA Notification 2006 requires preparation of an EIA and EMP Reports for Environmental Clearance (EC) in respect of hydroelectric power projects because they have been classified under category 1(c) “River Valley Projects”.
2.	The Environment (Protection) Act, 1986 and its amendments	This is an umbrella act that provides a holistic framework for the protection and improvement to the environment. It requires for obtaining environmental clearances for specific types of new/expansion projects and for the submission of an environmental statement to the State Pollution Control Board annually. It empowers central government to take measures necessary to protect and improve the quality of the environment by setting standards for emission and discharges; regulating the location of industries; management of hazardous wastes; and the protection of public health and welfare.	All utilities expecting to have any influence on the environment need to ensure compliance to this act.

I. Environment Protection			
S. No	National and State Laws for Environmental management	Overview of key provisions	Applicability to PforR
3.	The Forest (Conservation) Act 1980 and its amendments	This Act strictly restricts and regulates the de-reservation of forests or use of forest land for non-forest purposes without the prior approval of central government and lays down the prerequisites for the diversion of forest land for non-forest purposes. The act is relevant for the power sector for the siting guidelines for hydroelectric power plants, and for passage of transmission lines through forest areas.	Applicable for conversion of forest land for non-forest purposes.
4.	The Wildlife (Protection) Act, 1972, as amended in 1993 and Rules 1995	The Wildlife (Protection) Act, 1972 provides for protection of listed endangered species of flora and fauna and establishes a network of ecologically important protected areas, with the objective to control smuggling, poaching and illegal trade in wildlife and its derivatives. In case forest land within a protected area has to be converted for non-wildlife use, a no objection has to be obtained from Indian Board of wildlife and the State Legislature, before the final consideration of MoEFCC.	Applicable when there is involvement of endangered wildlife.
5.	Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016	It acts a guide for manufacturing, storage and import of hazardous chemicals, and for management of hazardous wastes. The rules require industries to classify wastes into categories and manage them as per the prescribed guidelines. It talks about the liabilities of Occupier, Transporter, Importer and Operator of any waste facility and the penalties that will be levied on them for violation of any provisions under this act. According to these rules, “hazardous waste” means any waste which by reason of characteristics such as physical, chemical, biological, reactive, toxic, flammable, explosive or corrosive, causes danger or is likely to cause danger to health or environment, whether alone or in contact with other wastes or substances “Environmentally sound management of hazardous and other wastes” have been explained as taking all steps required to ensure that the hazardous and other wastes are managed in a manner which shall protect health and the environment against the adverse effects which may result from such waste;	Storage and handling of hazardous wastes such as used gas, oil and other input materials, explosives for blasting, SF6 leakage, etc. has to be done according to the provisions of this act.
6.	National Environment Tribunal Act, 1995	The National Environment Tribunal Act prescribes the procedure and substantive law relating to compensation for the death of, or injury to, a person and damage to property and environment, by an industry wherein a hazardous substance is used or is a byproduct. It also provides for the establishment of a National Environment Tribunal for effective and expeditious disposal of cases related to such incidents.	Applicable as it provides for compensation in case of death and/or injury to person, property, and environment.
7.	National Green Tribunal Act, 2010	This act provides for the establishment of National Green Tribunal for the effective and expeditious disposal of cases related to environment protection and conservation of forests and other natural resources and giving relief and compensation	Applicable for disposal of cases related to

I. Environment Protection			
S. No	National and State Laws for Environmental management	Overview of key provisions	Applicability to PforR
		for damage to persons and property. It deals with laws on air and water pollution, the Environment Protection Act, the Forest Conservation Act and the Biodiversity Act. The relief and compensation under this act are given according to the Public Liability Insurance Act, 1991.	environment protection.
8.	Rules for the regulation of Rights in the Demarcated and Undemarcated Forests of the Sutlaj Valley under the Bashahr Lease, 1920	The rule prohibits certain activities like selling timber, shooting without license, setting trees and grass to fire, cultivation etc; in all the forests of the Bashahr State (now Kinnaur District).	Activities involving the activities need compliance to these rules.
9.	The Industrial Employment (Standing Orders) Act, 1946	This act requires employers (wherein 100 or more workers are employed) in industrial establishments to define with sufficient precision the conditions of employment under them and to make the said conditions known to workmen.	All utilities need to make their workmen aware of the operating conditions and keep them in loop with latest updates in the sector
10.	The Industrial Dispute Act, 1947	It makes provisions for the investigation and settlement of industrial disputes and providing safeguards to the workers.	Industrial disputes arising at these facilities are solved according to the provisions of this act.
11.	Himachal Pradesh Panchayati Raj Act, 1994	HP Government may entrust to the Gram Panchayat preparation of plans and implementation of schemes for economic development and social justice including those enlisted in Schedule II of the Act which covers rural electrification including distribution of electricity.	NoC certificate from gram panchayat is mandatory before commencement of any project activities in a particular area.

II. Pollution Prevention			
S. No	National and State Laws for Environmental management	Overview of key provisions	Applicability to PforR
1.	Air (Prevention and Control of Pollution) Act, 1981 and its amendments and rules	The act prohibits the construction and operation of any industrial plant without the consent of the SPCBs. It assigns powers and functions to the CPCB and SPCB for prevention and control of air pollution and related matters. This act empowers Central and State Pollution Control Boards to prosecute offenders and issue licenses for construction and operation of any facilities. National ambient air quality for different regions viz, industrial, residential, and sensitive areas is notified under this act,	At HPPTCL, the Gas Insulated Switchgear uses SF6 as insulator and is required to be stored and handled at site for various operations and maintenance requirements, according to this act.
2.	Water (Prevention and Control of Pollution) Act, 1974 and Rules, 1975	This act makes provisions for the establishment of the Central and State Pollution Control Boards, whose responsibility includes managing of water quality and effluent standards, monitoring water quality, prosecuting offenders and issuing licenses for construction and operation of any facility.	Compliance to this act is mandatory for construction and/or operation of any facilities.
3.	Water (Prevention and Control of Pollution) Cess Act, 1977	This act provides for the levy and collection of a cess on water consumed by industries and local authorities and defines standards and indications for the kind of and location of meters that every consumer of water is required to install.	Consumption of water by different utilities is done according to the provisions of tis act.
4.	National Ambient Air Quality Standards (NAAQS)	The objectives of air quality standards are: <input type="checkbox"/> To indicate the levels of air quality necessary with an adequate margin of safety to protect the public health, vegetation, and property; <input type="checkbox"/> To assist in establishing priorities for abatement and control of pollutant level; <input type="checkbox"/> To provide uniform yardstick for assessing air quality at national level; <input type="checkbox"/> To indicate the need and extent of monitoring programme. To combat air pollution, it is required to identify the pollutants, its source of emission and investigate the effects of living and the environment. The Central Pollution Control Board has notified the revised National Ambient Air Quality Standards Gazette of India, Extra-ordinary Part-II Section 3, sub section (ii), dated Nov 18, 2009.	Regular monitoring and keeping the air quality in check is done according to the provisions of this act.

III. Electricity Generation			
S. No	National and State Laws for Environmental management	Overview of key provisions	Applicability to PforR
1.	Renewable Energy Source Act 2017	The purpose of this Act is to enable the energy supply to develop in a sustainable manner in particular in the interest of mitigating climate change and protecting the	Applicable for any project activities that

III. Electricity Generation			
S. No	National and State Laws for Environmental management	Overview of key provisions	Applicability to PforR
		<p>environment, to reduce the costs of the energy supply to the economy not least by including long-term external effects, to conserve fossil energy resources and to promote the further development of technologies to generate electricity from renewable energy sources.</p> <p>(2) The aim of this Act is to increase the proportion of electricity generated from renewable energy sources as a percentage of gross electricity consumption to 1) 40 to 45 percent by 2025, 2) 55 to 60 percent by 2035 and 3) at least 80 percent by 2050.</p> <p>This development is to take place in a manner that is steady, cost-efficient and compatible with the grid system.</p> <p>(3) The aim pursuant to subsection 2 sentence 1 also serves to increase the share of total gross final energy consumption covered by renewable energy sources to at least 18 percent by 2020.</p>	are related to renewable energy generation.
2.	Draft Electricity (Amendment) Bill 2020	National Renewable Energy Policy: For environmental reasons, it is in our long-term interest to promote green power. India is a signatory to the Paris Climate Agreement. It is therefore proposed to have a separate policy for the development and promotion of generation of electricity from renewable sources of energy.	The policy is applicable for projects related to renewable energy sector.
3.	Electricity Act 2003	An Act to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity and generally for taking measures conducive to development of electricity industry, promoting competition therein, protecting interest of consumers and supply of electricity to all areas, rationalization of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies constitution of Central Electricity Authority, Regulatory Commissions and establishment of Appellate Tribunal.	The policy is applicable for activities related to generation, transmission, distribution, and use of electricity from any source- renewable or non-renewable.

S.No	National and State Laws for Environmental management	Overview of key provisions	Applicability to PforR
1.	HPPCL's Environment Policy for Hydro-power Projects	The policy delineates the principles on which environmental safeguards are provided for the execution of any project. It highlights HPPCL's commitment to address and mitigate adverse impact likely to impinge on the environment and ecology on any project area.	This act serves as a beacon light to the engineers for environmentally harmonious execution of the projects

S.No	National and State Laws for Environmental management	Overview of key provisions	Applicability to PforR
2.	HPPTCL's Environmental and Social Safeguards Policy (ESSP)	The Environment and Social Safeguards Policy (ESSP) outlines HPPTCL's approach and commitment to deal with environmental and social issues relating to its transmission projects, based on the basic principle of avoidance, minimization, and mitigation. HPPTCL is committed to the goal of sustainable development of power transmission network in harmony with nature and natural resources.	Applicable to any activity related to the program like installation of power sub-stations and creation of ancillary facilities.
3.	Himachal Pradesh Hydro Power Policy 2006	The objectives of the policy are to (a) develop local area by creation of Local Area Development Committee financed through Power Projects; (b) provide access of electricity to all households and to protect the interest of consumers; and (c) protect the rights of local inhabitants for irrigation and drinking water requirement.	Relevant and applicable to renewable energy projects as well as small hydropower projects (SHPs) up to a capacity of 5 MW, implemented by HIMURJA.
4.	HPSEBL's Electrical Safety Manual and General Safety Instructions, 2015	The objective of this policy is to enhance the awareness, skill and competence level of the authorized line staff, supervisory engineering associates and progressively to the consumer fraternity to enable them to demonstrate their involvement, responsibility and accountability towards making HPSEBL network geographical area injury and accident free.	Relevant to Distribution Electrical System functions to be followed by field offices under HPSEBL, to prevent fatal and non-fatal accidents.

2.2 Assessment of Institution and systems

2.2.1 DoE

After the trifurcation of erstwhile Himachal Pradesh State Electricity Board, the Directorate of Energy (DoE) was created during the year 2009. Headed by the Director (Energy), DoE looks at Allotment, monitoring, clearances, quality control and management of power projects in the state. DoE is the nodal office of Departments of MPP¹¹ & Power for coordination amongst all power utilities of the state of H.P.

2.2.1.1 Institutional structure, procedures, practices, and performance

- a. The Directorate of Energy is responsible for policy framing & Procedures for tendering and allotment of Hydro Electric Projects above 5MW. The Directorate is headed by the Director (Energy) and this Directorate looks after the work of Allotment, Monitoring, Grant of Techno Economic Clearance (TEC), for Hydroelectric Projects above 5MW capacity. Additionally, the issues related to Hydro Power Safety, Environmental & Social issues like; Monitoring and Management of Local Area Development Fund etc. , Quality Control, Management of Power Flow, Sale of GoHP Power share received from various Central, State & Private Hydro Electric

¹¹ Multiple Power Project

Projects, Implementation of Energy Conservation activities in the state as per mandate given by BEE, MoP in the capacity of State Designate Agency (SDA), DAM Safety aspects for all Large Dams in the capacity of DAM Safety Organization for State of Himachal Pradesh.

- b. Officers at level of Superintending Engineer and Executive Engineer have been co-designated and track any dam safety, accidents and violations on environmental compliance conditions as per approved environmental management plans that come to their notice during implementation of the hydro power projects. They conduct monitoring and evaluation of projects in terms of compliance of various environmental conditions, adhering to conditions of addressal of disaster management and EHS issues for all large projects above 5MW capacity and ensure the necessary compliances from project developers as per the norms.
- c. DoE examines DPRs implementation of HEPs and that includes environmental & social norms chapter related to Hydro Power Development. DoE also works as Dam Safety Organisation for all large Dams in state of Himachal Pradesh. DoE is also handling mandate for implementation through *Electricity Act; Energy Conservation Activities; Clean Development Mechanism; Hydro Power Policy; Local Area Development Fund Policy; R & R Plans; and HP Energy Conservation Building Code & Rules.*

ENVIRONMENTAL MANAGEMENT

- a. **Environment Management Procedure:** DoE is instrumental to mainstream Environment frameworks and overall Environmental Management Policy including implementation of carrying capacity studies, cumulative impact assessment studies and monitoring. DoE is responsible for directing the project developer for adopting framework of environment action plan to mainstream the mitigation measures of any adverse environmental impacts that can restrict various natural processes.
- b. **Environmental Management Practices:** DoE promotes and provides the informatory guidelines/norms to be ensured by projects developers for the use of good international practices in implementation of **E-Flow notifications, Catchment Area Treatment Plans, Climate Change & Disaster Management Risks by involving the authorized agencies like HPPCB, Mining Department, Labour Department & local authorities to keep checks on minimizing pollution potential, storage, transport and disposal of hazardous material**, etc. The guidelines are issued for major above 5 MW whereby the project design will avoid, minimize, or mitigate community, individual, risks. DoE is mandated to audit, monitor and put additional safeguard provisions when program activities are located within areas prone to natural hazards or other severe weather or climate events for all large projects more than 5MW capacity. Projects developers are directed to ensure that Contractor Liabilities are specified in the EHS guidelines, required trainings provided to the officials responsible for storage, transport, use and disposal of hazardous chemical, disaster management, dam safety in accordance with international guidelines and conservations including health and safety trainings.
- c. Though there is no formal procedure or format, but as part of its systematic activities and as part of DPR preparation, attempts are made to avoid undesirable environmental impacts. In projects where avoidance is not possible, it is ensured that the project developers mitigate the adverse impacts and prepare an Environmental Management Plan (EMP). The EMP includes the proposed Mitigation measures, Environmental monitoring and reporting requirements, related institutional arrangements, capacity development and training measures, implementation schedule, cost estimates, performance indicators, etc.

- d. **Environmental Monitoring and Reporting:** Six monthly monitoring reports are submitted by individual Project Developers as part of regulatory compliance. Key environmental parameters are monitored regularly by individual Project Developers and possible efforts are also made to monitor annually and through intermittent inspections by DoE. Any issue regarding violation of any norms as is received by DoE as a nodal agency the same is taken up immediately with the concerned utilities/Departments and project developers for resolving that issue effectively on priority basis. There is need for strengthening and integration of the annual monitoring activity by DoE in the form of a systematic format of collecting, analyzing and using information on the key parameters, thereby tracking the progress of any project towards its objectives; thereby facilitating decision making. Similarly, in monitoring and reporting of environmental non-compliances'. Inter entity or inter-stakeholder departmental coordination is also a challenge on environmental aspects at the DoE level.

SOCIAL MANAGEMENT

- e. **Communication, stakeholder mapping and engagement:** From 2014 onwards, a concerted effort was made to develop an effective communication strategy for shaping project governance and stakeholder management. The current protocol document lays out phase wise key milestones, objectives, activities, target audience, tools, and responsibilities summarized in the table below:

Table 1

Protocols	Planning	Construction	Operation
Milestones	<ul style="list-style-type: none"> • Identification • PFR Preparation • Invitation of bids through ICB route • Evaluation of bids • Allotment to successful bidder • Signing of PIA • DPR Submission • TEC • Signing of Implementation Agreement • Zero date of obtaining all requisite NOCs/clearances • COD • Handing over of project • Preparation Environment and Social Impact Assessment 	<ul style="list-style-type: none"> • Construction Plan • LADF • Detailing Environment Norms • Developing GRM • CAT plans 	<ul style="list-style-type: none"> • Project Information details • Report on maintenance of Environment Norms • GRM • Preparation of Post Commissioning LADF and CSR Works Detail
Objectives	Information dissemination and awareness generation	Awareness, Consultation, and participation	Inclusion, Participation, and monitoring

Activities	Set up PIC, print material in local language, regular interactions with PAPs, Gram Sabha meetings, disclosure and public hearing, participatory plans, Summaries of final EIA & SIA, Disseminate details of all relevant policies – Resettlement, Benefit Sharing, LADF etc.	Awareness about Project Affected Zone / Project Affected Area (PAZ/PAA) about the major construction activities, proposed methodology, the LADF and other Community welfare works, taking inputs and addressing grievances of PAZ/PAA, Monitoring and observation of the environment norms, Community monitoring and evaluation	Make the stakeholders aware about the final project capacity, generation units' size and other technical information with financial involvement, taking inputs and addressing grievances from PAZ/PAA, Monitoring and observation of the environment norms, Community monitoring and evaluation
Target audience	People in PAZ and PAA	<ul style="list-style-type: none"> • People in Project affected Zone and Project Affected Area • Visitors, and district administration and other departments • District Administration & DoE 	<ul style="list-style-type: none"> • People in Project affected Zone and Project Affected Area • District Administration and other stakeholders
Tools	Hoardings, Brochures, Banners, Multi-media presentations, 3-d models, broadcasts, face to face interactions	Hoardings, Brochures, Banners, Multi-media presentations, broadcasts, face to face interactions	Hoardings, Brochures, Banners, Multi-media presentations, broadcasts, face to face interactions
Responsibility	Project Proponents, District Administration and DoE & HPPF	Project Proponents, District Administration and DoE, HPPF & PCB Forest Department, District administration	

- f. **Grievance Redressal Mechanism:** Currently there is a multiplicity of systems and mediums for launching complaints which includes independent physical, telephonic, and online systems. The table below provides a snapshot of the available GRM.

Table 2

Internal to DoE			External to DoE	
Telephonic	Online	Physical	Online	Physical
Citizens can telephonically register grievances on:- 0177-2673551; 0177-2673552 Telefax: 0177-2673553	DoE has a website with a list of concerned officers. The grievances received by the Directorate of Energy through Director (Energy), or CE (Energy) are transferred to the concerned cell heads for redressal. The link: https://doehimachal.nic.in/	DoE conducts regular review meetings to discuss recurring complaints, unresolved issues and	State Govt. level - Following are the online portals a/w links to make the complaints. eSAMADHAN: https://esamadhan.nic.in/ CM Helpline: https://cmsankalp.hp.gov.in/ Him Pragati: https://himpragati.nic.in/index.html	Govt. Of HP has a weekly public hearing at the District level called Jan Manch from which any

		address complaints that need escalation		concerned complaints are forwarded to DoE
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While there is information on what the systems are, there is no information on the accessibility, effectivity, and efficiency of the systems. DoE and the Utilities require a robust and accessible GRM, with effective Response and Redressal, regular analysis of data and implications to complete the feedback loop and make required systemic changes.

- i. DoE needs to **host an integrated GRM for the Energy Sector**. It can be linked to the existing online and offline options in the state, but it needs to be systematized in terms of complaint categorization (utility wise), responsibility flow, alert and escalation systems, response, closure and complainant satisfaction.
- ii. Each complaint must have an option to use a toll free, online, and written complaint to designated personnel.
- iii. All complaints (received through any means) to be digitally recorded so that monthly record can be generated for analysis in terms of types of complaint, location, complainant profile. See the GRM flow for further clarity
- iv. Further to address and develop and operate this system at DoE, it will have to be equipped equally with resources, infrastructures & techniques.

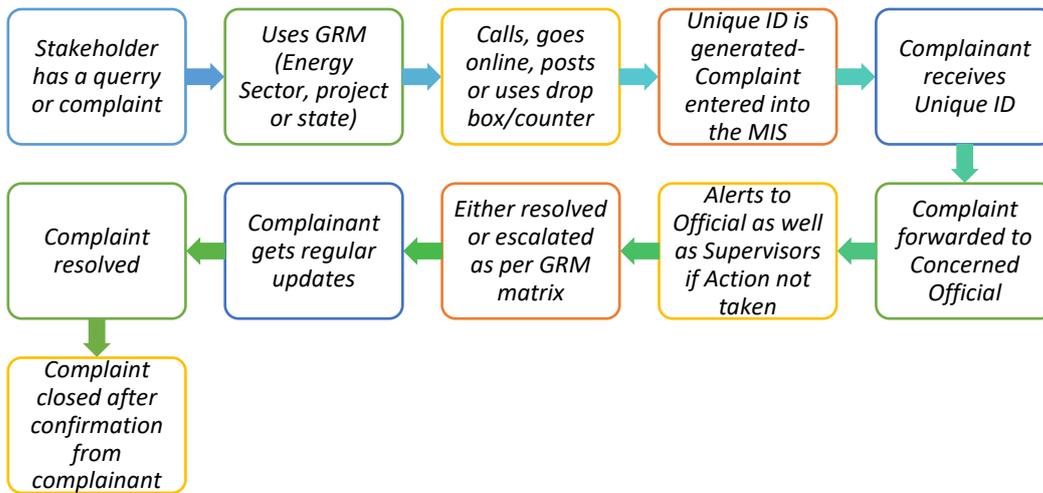


Figure 1: Suggested flow for GRM

g. Gender and Social Inclusion

DoE has a total of 70 employees, 18 of them are women (25.7%). In technical roles, women comprise 5.7% of the staff and in non-technical roles, women comprise 20% of the staff. Among the women staff, 17% are permanent staff and 83% are outsourced. There are separate sanitary facilities for Women in the DoE. Whenever needed vehicle services are provided to women staff for dropping at home and are escorted through responsible officers/ officials. Maternity leaves are provided as per the policy of the GoHP. There is an Internal Complaint Committee set up in

DoE with four members one external member, two female members and one male member. The committee's key role is as per the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013. The preliminary findings from the Gender study highlight the following issues:

Strengths	Weakness/Gaps	Opportunities
<ul style="list-style-type: none"> • All central and state government policies applicable to government employees¹² • ICC in place • Safe office drops services for women staff working after office hours, informal case to case office adjustments for pregnant staff, office breaks for nursing mothers • Informal mentoring on commission exams to aspiring staff • Health clinic for staff (free service) 	<ul style="list-style-type: none"> • Absence of an internal policy to promote inclusion and gender mainstreaming • Currently a system to track inclusion and benefits for women as well as gender indicators is not in place • Job advertisements in the power sector are gender neutral (not well targeted towards young women to apply) or use terminology which is male centric (like workmen, foremen, linemen, draughtsman) leading to more male applicants and selection 	<ul style="list-style-type: none"> • Reintroduce apprenticeship programme and commit to a minimum % of women interns • Frame advertisements with a gender responsive content and appeal- provide information on available safety security and family friendly provisions • Consider a sector/state policy on minimum % quota for women applicants in recruitment and selection, without compromising on quality of candidate

h. Land Management:

- The land management component in the Power sector is governed by the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR) and Himachal Pradesh Rules, 2015. In addition, sectoral policies such as HPPCL's Resettlement and Rehabilitation Policy, 2006 and HPPTCL's Resettlement, Relief, Rehabilitation and Compensation Policy, 2011 (RRRCP) have also been framed to protect the interests of the project affected persons during construction stage of energy sector projects. In order to provide regular stream of revenue for income generation on a sustained and continuous basis, the new Hydro Power Policy 2008 & Swaran Jayanti Energy Policy, 2021 and Himachal Pradesh Local Area Development Fund (LADF)¹³ enumerates adequate benefit sharing mechanisms for people adversely affected by hydropower projects.
- DoE tracks provisions in the project design and cost including a special provision of Local Area Development Fund (LADF) to ensure benefit to local communities in the project area concurrent to project implementation. The funds for Local Area Development are based on pre-determined objective parameters. The goal is that people of the affected area are well

¹² All laws and policies in force within the jurisdiction of the Himachal Pradesh or central government are applicable to the agencies. These include Vishakha Guidelines-POSH policy under Conduct, Discipline and Appeal Rules, Maternity Benefit Bill, Paternity Leave Policy, Employees Provident Fund, assured career progression scheme etc.

¹³ The Government of Himachal Pradesh notification dated 20.01.2022 in line with the provision contained in the Government of India's National Hydro Power Policy, 2008, notified an additional one percent free power from the hydel power projects to be provided and earmarked for a Local Area Development Fund (LADF)

informed towards these provisions and use of LADF creates goodwill for the project and wellbeing for the communities.

- LADF aims to providing regular stream of revenue for income generation and welfare schemes, creation of additional infrastructure and common facilities etc. on a sustained and continued basis over the life of the project. This fund is to be made available in the form of an annuity over the entire life of the project.
- Stages and key steps under LADF: In accordance with the provisions of Swaran Jaynati Energy Policy, 2021 of HP and National Hydro Power Policy, 2008 of GoI and their amendments from time to time, the hydro project developers in the State shall make two stage contribution towards LADF: Prior to Commissioning of the Project and After Commissioning of the Project towards LADF accounts being maintained by respective LADCs.
- For effective implementation, there is categorization, institutional arrangements and parameters as given in the table below:

Categorization ¹⁴	<p>PROJECT AFFECTED FAMILY (PAF): Means a family whose land or house or other property or source of livelihood has been partly or fully affected by the development of a hydroelectric project and resident family whose name have entry in the Parivar Register of the Gram Panchayat(s) / local bodies of the Project Affected Area on the date of allotment of the project.</p> <p>PROJECT AFFECTED AREA (PAA): Means the area where actual project components including submergence area/muck dumping area, mine/quarry area, infrastructure including project roads, project's dedicated township, offices, construction facilities, welfare facilities and any other facility directly related to project implementation are located. Townships and offices such as design office or head office not directly connected with the particular project site are excluded. Unit for declaring PAA would ordinarily be the Gram Panchayat (GP). However, in the case of projects up to 5 MW capacity, where component(s) pertains only to specific wards and do not impact the rest of the Gram Panchayat then those wards shall be separately enumerated and considered as PAA.</p> <p>In case of projects involving resettlement, the area for resettlement shall also be covered as PAA.</p> <p>PROJECT AFFECTED ZONE (PAZ): Means the area surrounding such PAA where impact of the project on the lives of people is considerable even if no direct project activity is taking place there. The categorization of PAZ on the basis of project size will be as under:</p> <ul style="list-style-type: none"> a) For projects of capacity up to 5 MW: Only such contiguous wards/ panchayats to PAA as are considered to be impacted by the project. b) For projects of capacity from 5 MW to 100 MW: All the contiguous panchayats to PAA as are considered to be impacted by the project, in the same or adjoining district(s). c) For projects of capacity above 100 MW: Entire-block or all such contiguous panchayats to PAA as are considered to be impacted by the project in the same or adjoining district(s).
Institutional Arrangements	There shall be a State Level Committee headed by Additional Chief Secretary/Principal Secretary (MPP & Power) to monitor the operation of the LADF arrangements, adherence to guidelines and timelines for deposit in the fund at various stages. The State Level Committee

¹⁴ Project Affected Families in all case shall be declared by the concerned DC. Project Affected Area and Project Affected Zone will be declared by Govt. of Himachal Pradesh on the recommendation of concerned DC for projects over 100 MW and by the concerned Deputy Commissioner for projects upto 100 MW. In case of project falling in more than one District the PAA & PAZ will be declared by GoHP. No expenditure will be incurred till the PAA and PAZ are notified.

	is empowered to clarify any un-addressed issues and remove any difficulties to facilitate smooth functioning in implementation of these guidelines. The Directorate of Energy will be the nodal agency at state level and will keep a record of the LADF activities and amounts to be deposited by each project developer. It will also manage the allocation of revenue generation from 1 % additional free power to the concerned LADC to be constituted as described hereafter. The amount to be deposited by each project developer will be kept in a single account in Directorate of Energy and the State Level Committee is empowered to utilize the interest generated from the amount deposited and the revenue generated by retaining two (2) paisa per unit as expenses of Directorate of Energy.				
Parameters ¹⁵ for allocation of funds	Pre-Commissioning LADF: Allotment of funds for local area development works shall be made strictly in accordance with the following norms:				
	S. No.	Category of HEPs	Norms for allocation of LADF during the construction		
			Project Affected Area (PAA)	Project Affected Zone (PAZ)	
		Project Affected Panchayat(s)		Project Affected Block(s)	
	1.	Upto 5 MW Capacity	70%	30%	-
2.	>5-100 MW Capacity	60%	20%	10%	10%
3.	> 100 MW Capacity	50%	20%	15%	15%
<p>Further allocation of funds amongst the panchayats in PAAs shall be determined on the basis of a formula that assigns weightage to the following parameters in respect of 50% of the funds proposed to be allocated for PAA as per the table above:</p> <ul style="list-style-type: none"> a) Extent of private land used for project components including submergence of land - 45%. b) Extent of land affected above underground components- 15%. c) Extent of land used for infrastructure-roads, colony, warehouses etc.)- 20% d) Affected stretch of river/stream on both banks in respect of diversion structure and power house - 20% <p>Note: These ratios will be finalized by the LADC Chairman in consultation with the project developer based on factual details and ground realities. In case the project involves families to be displaced and relocated outside the PAA, funds shall also be allocated to the host Gram Panchayats in the ratio of number of PAFs displaced to total PAFs. Till the host Gram Panchayat is identified this amount shall not be distributed.</p>					

¹⁵ Further allocation of funds amongst the Panchayats for Panchayat level schemes in Project Affected Areas shall be determined on the basis of a formula by assigning fixed weightage to the following parameters in respect 50% of the funds proposed to be allocated for PAA: a) Extent of private land used for project components including submergence of land - 45%, b) Extent of land used above underground components - 15%, c) Extent of land used for infrastructure (Roads, Colony, warehouses etc.) - 20%, d) Affected stretch of river /stream on both banks in respect of Diversion structure and Power House - 20%

	<p>The balance 50% of the funds to be allocated for PAA as per the table above, shall be on the basis of ratio of population of each concerned GP to the total population of the entire area in PAA as on 1st January of the year of allotment of the project.</p> <p>Funds amongst GPs in the PAZ shall be allocated as per ratio of population of each GP to the population of all GPs in the PAZ.</p> <p>Funds for schemes from the amount kept for block or district level shall not be allocated for Panchayat Level Schemes. In other words, schemes out of these funds must result in benefits to the block or district as the case may be. These funds may be allocated to a road, water supply, education or health institution serving more than one GP or block or entire district and not to a scheme restricted to a GP area.</p> <p>Post Commissioning LADF:</p> <p>The State Government through the Directorate of Energy will provide revenue received from the 1% additional free power component for each project to the LADF. The amount so received shall be allotted by the LADC in the form of a cash transfer to all the PAFs, every year, during the entire life span of the project as below:</p> <ul style="list-style-type: none"> - 50% of the total amount of LADF will be divided amongst the Gram Panchayats in proportion to the land acquired in each Gram Panchayat for equal distribution among the PAFs. - Balance 50% of the total amount of LADF to be divided to all the families in PAA equally.
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FREE ELECTRICITY TO PROJECT AFFECTED FAMILIES

- As per the National Hydro Power Policy- 2008, in respect of the projects commissioned after 31.03.2008, incentive in terms of 100 units of free electricity to all the eligible PAFs shall be provided for 10 years from the date of commissioning of respective Project.
 - The project developer shall deposit an amount equivalent of applicable subsidized tariff for 100 units of electricity for the PAFs. The subsidized tariff is determined by HPERC from time to time, with concerned LADCs and the balance amount equivalent to the quantum of subsidy with Directorate of Energy. This shall be done annually.
- i. **Labor management:** For labour related matters, Monitoring Unit of DoE is responsible to verify if the implementing agency has hired at least 70% *Himachalis*¹⁶ of all the total contracted or company staff be it executive, non-executive, skilled and unskilled. In addition, the monthly reports submitted to DoE from each of the projects includes the following key performance indicators on Occupational health and safety and associated training including incident reporting as mentioned in the figure below:

¹⁶The revised Energy policy increases this to 80 percent (as per the Clause No. XXXVII oc Chapter IV of Swaran Jayanti Enegy Policy.)

Total Numbers of Employee	EHS Induction Training	Fatalities
Days worked in month	EHS Training - Specific	LTI (Above 48 Hrs.)
Manhours Worked	EHS Training - Refresher	Manday lost due to LTI
Safety Observations / issues reported	Person attended training	LTIFR
Safety Observations / Employee	EHS Training coverage (% of Total employees covered under EHS training)	LTISR
Safety Observations / issues closed	EHS training hours / employee	Severity Rate (Man-day lost / LTI)
Near Misses Reported		MTI (Below 48 Hrs.)
Near misses reported / Employee		First Aid case
Occupational Illness reported		High Potential Incident
		Accident Free Man-Hours

Figure 2: Key Performance Indicators to track OHS

2.2.1.2 Program Activities and associated Impacts

The DoE is the Nodal Department responsible for Policy and Institutional planning; Coordination with the World Bank and other power sector entities; Monitoring of milestones and results of each entity (in the project MIS); Collating and implementing Capacity development needs of the sector as a whole.

	PforR Activity	Social Implications	Environment Implications
1	Policy planning	Social management to be incorporated in the overall policy and vision of the power sector. Develop utility specific guidelines for screening and scoping of social risks for improved planning, implementation and monitoring at sub-project level	An overall screening and scoping guideline need to be available with DoE for energy generation practices in the State that is evolving with concepts of bundling of energy and using renewables to address peaking power demands. There is an opportunity of developing guidelines based on basin level studies.
2	Strengthening governance capacities	Develop a Social Management Portfolio for DoE with competent staff and consultants and systems development for efficient monitoring and evidence-based reporting of social risk management. A comprehensive Capacity building Plan with focus on specific social development themes and topics, processes and procedures for operationalization of assessing, designing and implementation of social risks and monitoring is critical for allocating resources and augmenting the capacity	Though at present Environmental Portfolio is efficient but it is co-designated and overburdened. Hiring and recruiting dedicated subject matter specialists/Environmental Engineers & well-defined work guidelines supported with consultant will further strengthen the Environment Management Capacity of DoE. Existing Institutional support needs to be augmented with resources for critical additional personnel and resources to cater Environmental issues. Capacity enhancement of existing staff with specific trainings and drills focused on incorporating environmental screening, impacts and mitigation measures. A dashboard system integrating all power utilities which will be tracked for

	PforR Activity	Social Implications	Environment Implications
		<p>Strengthen the MIS system for an integrated state level reporting system by all utilities on social risk management and mitigation.</p> <p>Strengthen capacity of staff following the need assessment with special focus on women to develop and implement a structured training plan.</p>	<p>E and S monitoring needs to be established which should also include stakeholder departments like HPPCB, HP Forests, PWD, urban and Tourism.</p>

2.2.1.3 Assessment Against Core Principles

Core Principle #1: Program E&S management systems are designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects.		
Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
<ul style="list-style-type: none"> The legal framework at national and state level is robust and the utilities take cognizance of it in its systems and practices. DoE has the legal authority and backing for aggregating, developing, mainstreaming, and monitoring E&S policies, systems, and reporting mechanisms. There are multiple systems for GRM within the state and the sector to ensure citizens, staff and other stakeholders can launch complaints and feedback and seek redressal 	<ul style="list-style-type: none"> Himachal Pradesh's Swaran Jayanti Energy Policy 2021 has limited approach to Social Risk management. The current practices of E&S are utility and project centric where the donor requirements take precedence rather than a unified/integrated policy and systems for the sector. At present DoE does not have any systems to monitor if screening and scoping are done by Power Utilities/Departments at project levels. The officials have additional charge of social management, and the capacity development portfolio is not systematized for developing adequate skills in performing the responsibilities. Available documentation makes it difficult to track accessibility, efficiency and effectiveness of the GRM 	<ul style="list-style-type: none"> Swaran Jayanti Energy Policy 2021 to cover Social Risk management more comprehensively and effectively. As a nodal agency, DoE to map the existing E&S systems and procedures across utilities for an integrated framework, develop or augment capacities and set up reporting/monitoring mechanisms to track implementation and results A sector-wide cumulative impact assessment to identify the strengths and gaps as well as inform the overall development of systems for E&S risk management. Existing Institutional support needs to be augmented with resources for personnel, funds, expertise, and overall support to meet the requirements of E&S issues Develop guidelines, procedures, and indicators to track performance on overall social risk management, land management, benefit sharing, stakeholder engagement, labour law compliance, social inclusion, gender mainstreaming and capacity development An integrated GRM which uses multiple mediums (phone, postal, email, mobile app, face to face) to launch complaints, track them, have a responsibility matrix, escalation mechanism, redressal timelines and closure protocols.
Strengths	Weakness/Gaps	Opportunities/Recommendations
ENVIRONMENTAL MANAGEMENT		
<ul style="list-style-type: none"> DoE have adequate legal framework and also regulatory authority to discharge its duty as nodal agency for the P4R. DoE provides policy support for developing and executing the projects and Individual Power Utilities/Departments have their own systems of screening and scoping, but the adoption of a 	<ul style="list-style-type: none"> DoE does not have an umbrella E&S framework for different levels of DoE but has regulatory authority to discharge its duty as nodal department for the P4R. There is a need to develop an all inclusive environmental monitoring and management 	<ul style="list-style-type: none"> ESPP is recommended to Integrate all-encompassing uniform system on screening, managing and monitoring for an effortless planning and execution of projects. ESPP should be incorporating tracking tools from project preparation to implementation to post commissioning monitoring of each power utility and their projects segregating in to (a) transmission &

<p>uniform environmental management system for all kinds of projects, is the need of the hour.</p> <ul style="list-style-type: none"> • DoE is actively involved with HPPCL, IPPs and other relevant state departments in assessing impacts on a river basin level. MoEF &CC, GoI has conducted CEIAs in three out of 5 river basins. One is under finalization and one is yet to be taken up. Moreover, comprehensive Catchment Area Treatment Plans are in place which are monitored by State Forest department. • Project developers do develop their own project area specific E&S policy and they ensure that Environmental Management Procedure and processes are designed to avoid, minimize and mitigate adverse effects on natural habitats and physical & cultural resources resulting from construction of project. • DoE ensures that key environmental parameters (concerns and conditions like debris disposal, air, water, soil qualities, etc) are monitored by project developers during project implementation. • The officials are co-designated for discharging environmental responsibilities and there are training provisions under various state and national level programs. • Consultations are conducted with stakeholders throughout project implementation as necessary to address issues related to Environmental assessment 	<p>system, by aligning it with global best industries practices.</p> <ul style="list-style-type: none"> • At present DoE does not have any mechanisms to check if screening and scoping are done by Power Utilities/ Departments at project levels. • The CIA Reports though address almost all parameters, but need further strengthening on the issues related to changes in hydrological regime, downstream flows, territorial and aquatic biodiversity, including primary survey for migratory fishes, soil erosion and sediment movement, catchment area treatment, vulnerability risk assessments from landslides and earthquakes, dam safety considerations, climate change impacts, impacts on downstream and upstream communities, models of benefit sharing, etc. • The state has taken all positive strides and developed CIA reports for 5 river basins, however, these may require a relook not only on cumulative environmental and social impacts but also on biodiversity, aquatic, downstream usage of water and benefit sharing mechanisms than those already in practice. The state thus has to revisit existing CEIAs, CAT Plans, vulnerability analysis of terrain from disaster management and other notifications and procedures on e-flows, crop damage and local area development fund so that hydro power development and operation and maintenance be environmentally and socially sustainable. • The existing resources are overburdened with additional charges and also planned resources are not allocated for training and strengthening the system 	<p>Distribution, (b) Generation, (c) Trading and new initiatives on hydro like bundling and (d) other renewable projects by HIMURJA or others.</p> <ul style="list-style-type: none"> • An overall screening and scoping guideline needs to be available with DoE for energy generation practices in the State that is evolving with concepts of bundling of energy and using renewables to address peaking power demands • Further to address environmental and social sustainability, a comprehensive gap analysis of existing cumulative environmental and social assessments is underway to develop a road map for comprehensive strategic document for basin wide environmental and social sustainability in future including reformist actions on policies and institutions, if needed. • Elements of Environmental and Social impacts envisaged by way of climate change, safety and disaster management needs to be included in the protocols of all energy utilities and to be monitored and tracked. • Existing Institutional support needs to be augmented with resources for critical additional personnel and resources to cater E&S issues in particular • For Capacity Development of E&S risk management following actions will be taken up as part of the program (a) Hiring of key Environmental expert with independent charge in DoE as staff, with needbased support of fisheries, bio-diversity and dam safety expert (b) training need assessment, prepare training calendar including target group and its implementation. Existing Institutional support needs to be augmented with resources for functionaries/personnel, funds, capacity building, and overall support to address E&S issues • Adopt web-based Monitoring and Evaluation (M&E) systems to monitor E&S risk management for evidence-based reporting including basin wide CAT Plan management systems and downstream flows. • As a nodal agency, DoE to map the existing E&S systems and procedures across utilities to develop an integrated framework, augment capacities and set up reporting/monitoring mechanisms to track preparation, implementation, and results through web-based systems. IT enabled dashboard for an integrated state level evidence based E&S monitoring and reporting at DOE is recommended.
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<p>Core Principle #2: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing</p>		
Strengths	Weakness/Gaps	Opportunities/Recommendations
ENVIRONMENTAL MANAGEMENT		
<ul style="list-style-type: none"> Project developers for respective Project Includes appropriate measures for early identification and screening of potentially important biodiversity and cultural resource areas Project developers do develop their own project area specific Environmental & Social Policy and they ensure that Environmental Management Procedure and processes are designed to avoid, minimize and mitigate adverse effects on natural habitats and physical & cultural resources resulting from construction of project. Proper care is taken by project developers to avoid implementation of project activities in areas of Critical habitats. Takes into account potential adverse impacts on physical cultural property and, as warranted, provides adequate measures to avoid, minimize, or mitigate such effects 	<ul style="list-style-type: none"> Project developers for respective Projects describe Potential direct or indirect impacts and risks to Physical, Biological, and Socioeconomic Environment conduct an Initial Environmental Examination/Environmental Assessment DoE is dependent on project developers for taking appropriate measures for early identification and screening of potentially important biodiversity and cultural resource areas The program is unlikely to have adverse impact on critical natural habitat and physical cultural heritage 	<ul style="list-style-type: none"> There is an opportunity of developing integrated guidelines in form of ESPP to promote E&S sustainability to adopt uniform system across all planned activities to ;(a) design and screen the activities to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources;(b) avoid, minimize, or mitigate adverse impacts; (c) promote informed decision-making relating to Program’s E&S effects; and (d) implementing evidence-based evaluation and monitoring arrangements. A comprehensive gap analysis of existing cumulative environmental and social assessments is required to develop a road map for comprehensive strategic document for basin wide environmental and social sustainability in future including reformist actions on policies and institutions, if needed. Adopt recommendations of the Comprehensive Cumulative Environmental and Social Study for benchmarking basin wide E&S protocols and benchmarking projects from environmental, social and technical sustainable parameters.
<p>Core Principle #3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.</p>		
Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
<ul style="list-style-type: none"> Adequate legal provisions in the national and state laws which are a part of the bid documents for all projects Key performance indicators on labour management are developed 	<ul style="list-style-type: none"> Tracking and reporting on sites, labour conditions, any cases of labour law violation, gender-based violence Absence of systems for risk assessment of labour influx and impact on host communities 	<ul style="list-style-type: none"> Under the P4R, DoE can pilot and roll out labour law compliance tools which provide systematic, simple, and real time tracking by the contractors and Utilities The P4R also provides an opportunity to streamline Labour Management Procedures, Labour Management Plans and Labour Influx Management to ensure safety of individual, direct, indirect,

		contracted, sub-contracted and community labour as well as management of risks in case of labour influx and impact on host communities.
Strengths	Weakness/Gaps	Opportunities/Recommendations
ENVIRONMENTAL MANAGEMENT		
<ul style="list-style-type: none"> Project developers follow their own project specific Environmental & Social safeguard policy to ensure adequate measures to protect Public and worker's safety against the potential risks. Project design includes measures to avoid, minimize, or mitigate community, individual, and worker risks when program activities are located within areas prone to natural hazards or other severe weather or climate events. The provisions of safe and healthy working conditions and prevention of accidents, injuries, and disease, Establish preventive and emergency preparedness and response measures to avoid, and where avoidance is not possible, to minimize adverse impacts and risks to the health and safety of local communities is taken up by Project Authorities DoE promotes and guide/direct project developer to ensures the use of good international practices during storage, transport and disposal of hazardous material. It also ask project developer to ensures that Contractor permissible limits as specified in the EHS guidelines imparts the required trainings to the workers involved in procurement, storage, transport, use and disposal of hazardous chemical in accordance with international guidelines and conservations. Project Developers keep provisions for Contractor to impart necessary training/ awareness regarding safety aspects to its personnel working at the line as well as to provide personal protective equipment like safety gloves helmet, 	<ul style="list-style-type: none"> Project developers follow their own Environmental & Social safeguard policy to ensure adequate measures to protect Public and worker's safety against the potential risks. The system lacks in integrated approach, but Individual Project design includes measures to avoid, minimize, or mitigate community, individual, and worker risks when program activities are located within areas prone to natural hazards or other severe weather or climate events. 	<ul style="list-style-type: none"> There is an opportunity to promote E&S sustainability for all power entities to adopt uniform system across all planned activities that DoE can monitor to (a) promote informed decision-making relating to Program's E&S effects and make community and assets safe from natural hazards or other severe weather or climate events; and (b) implementing evidence based evaluation and monitoring arrangements. This can be done by adopting ESPP at uniform level for all utilities and activities that will have all recommended environmental, social and technical sustainable parameters of planned basin wide Comprehensive Cumulative Environmental and Social Study. Mainstreaming environmental and social sustainability frameworks for existing, ongoing and pipeline projects in State's Energy Sector.

<p>mufflers, etc. during the construction period and maintenance work</p> <ul style="list-style-type: none"> Project developers ensure that first-aid facilities are mandatorily be made available with the labour gangs and ambulance/ doctors on call from nearby towns when necessary. 		
<p>Core Principle #4: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards</p>		
<p>Strengths</p>	<p>Weakness/Gaps</p>	<p>Opportunities/Recommendations</p>
<p style="text-align: center;">SOCIAL MANAGEMENT</p>		
<p>Policies are robust (Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 and Himachal Pradesh Rules, 2015. In addition, sectoral policies such as HPPCL's Resettlement and Rehabilitation Policy, 2006 and HPPTCL's Resettlement, Relief, Rehabilitation and Compensation Policy, 2011) to protect the interests of the project affected persons during construction stage of energy sector projects. The Tariff Policy, 2006 and Himachal Pradesh Land Area Development Fund enumerates adequate benefit sharing mechanisms for people adversely affected by hydropower projects.</p>	<ul style="list-style-type: none"> There is no information at state level on the land required both private and community or limiting access to resources that may adversely impact people by multiple utilities. Similarly, information gap exists on flow of funds under the LADF to affected families or its utilization at community level. 	<ul style="list-style-type: none"> The power sector to take cognizance of the RFCTLARR 2013 such that the existing frameworks, systems and practices across the sector are aligned to the provisions of RFCTLARR 2013 There are good practices within DoE, HPPTCL, HPPCL, HPSEBL using the existing legal frameworks as well as their internal systems. These can be aggregated and used to develop comprehensive guidelines. Integrated reporting systems against clear indicators to be developed for the power sector so the performance on land management and benefit sharing can be tracked across utilities
<p>Core Principle #5: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (hereafter referred to, interchangeably, as Tribals, Tribal Groups or Tribal Populations), and to the needs or concerns of vulnerable groups)</p>		
<p>Strengths</p>	<p>Weakness/Gaps</p>	<p>Opportunities/Recommendations</p>
<p style="text-align: center;">SOCIAL MANAGEMENT</p>		
	<p>Information on implementation of targeted schemes for Scheduled Tribes on the utility's projects is not available.</p>	<p>Track implementation of schemes related to Scheduled Tribes on the utility's projects</p>
<p>Core Principle #6: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes (<i>Not Applicable</i>)</p>		

2.2.2 HPPTCL

HPPTCL, the State transmission Utility and deemed transmission licensee¹⁷ is responsible for planning and execution of all new 66 kV and above systems in the State. The open access in transmission as per the provisions of Electricity Act makes HPPTCL under obligation to provide on-demand open access to the transmission systems to facilitate such multi-lateral energy transactions on payment of transmission charges as determined by HPERC.

2.2.2.1 Institutional structure, procedures, practices, and performance

- a. HPPTCL has a staff of 452 employees (including 148 outsourced) working in the head office (Shimla) and in the field offices at eight district locations. Since its inception, HPPTCL has set up 14 sub-stations (2694 MVA) and 341ckt kms Transmission line.

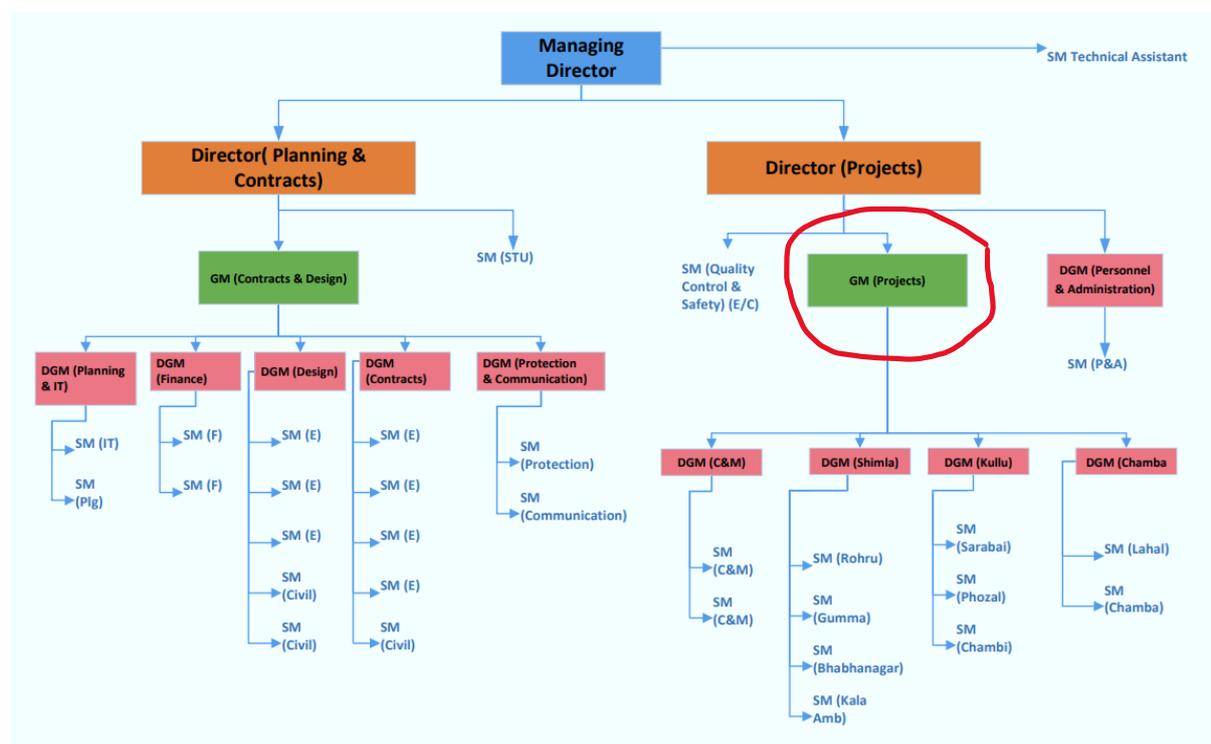


Figure 3: HPPTCL organogram

- b. There is an Environment and Social Cell (ESC) at the Corporate Level to manage safeguard compliance. It has a team of 5 members. The General Manager (Projects) is the Head of ESC (encircled in the main organogram). In addition to that a Sr. Manager (co-designated for Environment & Social Safeguards), Dy. Manager (co-designated for Environment & Social Safeguards) and hired consultants (Environment and Social Safeguard) are the members of the ESC. ESC is supported by Sr Managers at field level in PIU. HPPTCL has hired Environment Consultant responsible to support Environmental Safeguard measures for the projects. In the interim the Environment Consultant is also responsible to support Social Safeguard measures. ESC has a clear depiction of Role and Responsibility, with emphasis on adherence to the ESSP policy for all staff. It is committed to maintaining high standards of human resource development of staff, contractors and workers involved in the project. HPPTCL is committed to involve

¹⁷HPSEBL had been responsible for creating and maintaining the Transmission System till 2008 before the unbundling of HPSEB under the reforms process.

licensed/registered agency in disposal of used gas, oil and other input materials in an environmentally compatible manner.

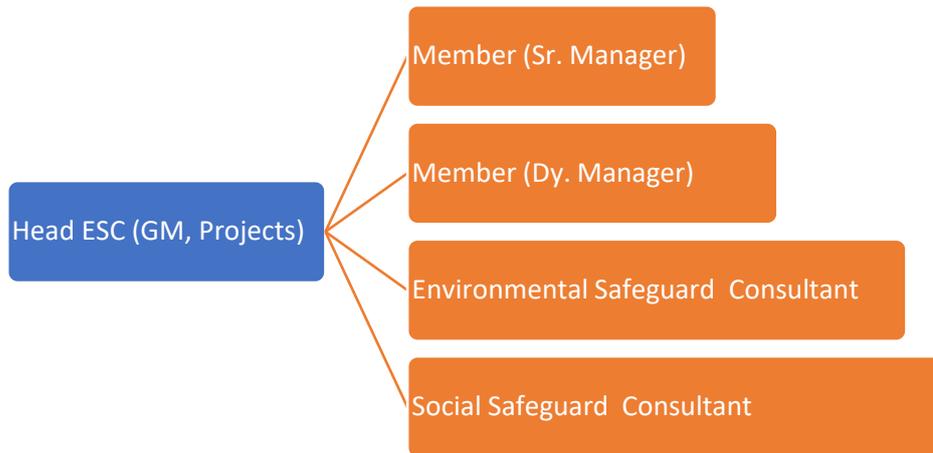


Figure 4: Environment and Social management Cell of HPPTCL

c. Roles and responsibilities of the ESC

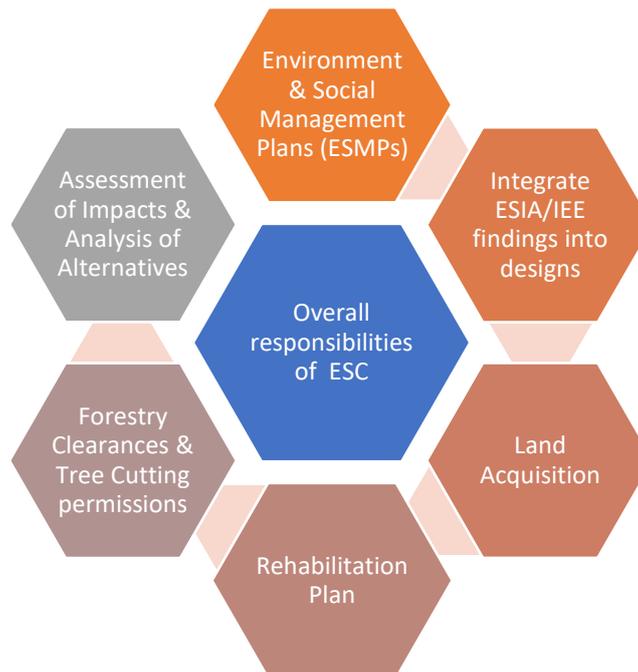


Figure 5: Role of ESC during planning phase

The tasks ESC must undertake during planning phase are provided in the figure. While during the project implementation stage, ESC is responsible to:

- Ensures compliance with the measures and requirements relevant to the Contractor as outlined in the ESIA/IEE, the ESMP, the RP, and any corrective or preventative actions set out in a Safeguards Monitoring Report.
- Payment of adequate compensation and loss of assets to the PAPs as per approved policy.

- Compensation for the loss of crops & trees/structures is paid as assessed by the State Agriculture, Horticulture, Forest, or Revenue Department, whichever applicable.
 - Grievances/complaints are received from the public.
 - The grievance redressal mechanism is displayed on the office notice board.
 - A complete record of the representations received must be maintained, including photographs.
 - Organise regular Consultation with stakeholders.
 - Prevent project induced Gender-based violence.
 - Reporting and Documentation: A complete record of the Environment and Social Management measures is maintained and reported to the funded agency as per the scheduled reporting period.
- d. **HPPTCL** approved its **safeguards policies** in the month of May 2011 which are (i) Environmental and Social Safeguards Policy (ESSP) and (ii) Resettlement, Relief, Rehabilitation and Compensation Policy (RRRCP). The chapter IV of Resettlement, Relief, Rehabilitation and Compensation Policy (RRRCP), May 2011 has been amended in 2019 and 2020. The Goal of HPPTCL's Environmental and Social Safeguards Policy (ESSP) is to ensure that development of power transmission system network in environmentally and socially sustainable manner and to bring clarity and transparency about it with public disclosure. HPPTCL has developed it to guide the operationalisation of the basic principles of Avoidance, Minimization and Mitigation in project activities. The ESSP outlines HPPTCL's approach and commitment to deal with environmental and social issues **relating to its transmission projects**. The main aim of ESSP is to move away from the classical cost-benefit approach to the larger realm of Corporate Social Responsibility, while mainstreaming the environmental and social concerns in its operations.
- e. The Corporation's aims and objectives are to undertake transmission of electricity through Inter-State and Intra-State Transmission System and to discharge all functions of planning and coordination relating to Inter-State and Intra-State Transmission System. Main Acts that have a bearing on the working of HPPTCL are - Indian Forest Act, 1927; Forest Conservation Act, 1980; Wildlife (Protection) Act, 1972; Environment Protection Act, 1986; Electricity Act, 2003; Batteries (Management and Handling) Rules, 2001; National Environment policy, 2006; HP Hydropower Policy, 2007; National Conservation Strategy and Policy Statement on Environment and Development, 1992; Policy Statement for Abatement of Pollution, 1992; Wildlife Conservation Strategy, 2002; National Forest Policy, 1988. HPPTCL have adequate institutional capacity to address prevailing regulatory framework of the country and also addresses stipulated E&S guidelines of multilateral funding agencies.
- f. The ESSP has the special provision to deal with social safeguards through its special policy, **RRRCP**. The RRRCP lays down the guiding policy of HPPTCL for preparation of project specific R&R Plans and its implementation for the transmission projects under HPPTCL.

ENVIRONMENTAL MANAGEMENT

- g. **Environmental Policy:** Depending on the requirement of the funding agency, HPPTCL carries out and Initial Environment Examination or Environment Impact Assessment to identify and predict the impact of the project on physical (Soil, Water, Air), Biological (Flora, Fauna and Ecosystem) and Socio-economic (Land uses, Landscape, Cultural Heritage including impacts on livelihood through environmental media, health and safety, vulnerable groups and gender issues). This activity is carried out by Environment and Social Monitoring Cell of HPPTCL. HPPTCL's work can

broadly be divided into two categories viz. Laying of Transmission Line and constructing Power Substations. Right of Way (RoW) width for laying of transmission line depends on the line voltage. A vertical clearance of 3 meters is presently allowed below each conductor for the movement of tension stringing equipment. Felling, pollarding and pruning of tree for electric clearance and/or movement of machinery, whenever necessary, is done with permission from the local forest officer with due mitigation and abatement measures as may be prescribed. When trees on such strips are felled, natural regeneration and afforestation with dwarf species can be allowed to come up. Efforts are made to locate the sub-stations (5-10 ha) on wasteland or land of least ecological and economic value and least social significance as it needs to be cleared of its vegetation to enable construction activity. HPPTCL is committed to the goal of sustainable development of power transmission network in harmony with nature and natural resources.

h. Environmental Procedures and practices

- HPPTCL adopts a proactive/ route alignment/ site selection approach. They are done on walk over surveys, usage of tools such as forest atlas, revenue papers, Survey of India maps of the area. HPPTCL makes all possible efforts to avoid eco-sensitive areas, forest areas, or to keep it to the barest minimum. The site for substations is selected so that it is geologically stable and safe, so that cutting and levelling for construction of substation does not lead to landslides. Cutting for levelling is done with a view to avoid soil erosion and the muck obtained in digging is used in filling to achieve levelling. HPPTCL carries out detailed analysis of alternatives for all projects, in order to find the alternative with minimum environmental implications. The proforma for environment screening of the project is available with HPPTCL, and it covers details of line route going through snow area, cultivated area, forest area etc. The format needs further strengthening to cover all aspects of critical environmental parameters to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the program.
- To avoid and minimize the potential impacts on avifauna viz; Risks of Collision, Risks of Electrocution, Disturbance and Habitat Destruction of avian species, detailed biodiversity impact assessment (a combination of scientific ornithological survey and desktop assessment) are carried out. Suitable mitigation measures viz; installation of Bird flight diverters, wherever required, are brought into practise. Biodiversity Assessment is carried out only when mandated by any regulatory or funding obligations and is not a norm for all projects. It defines the baseline environment and potential ornithological impacts associated with the specified project in order to develop mitigation measures. It should be further strengthened and included in the ESMF and also should be made a part of a detailed framework for all transmission projects in HP. Biodiversity studies are project specific as and when required under regulatory compliance under Forest Conservation Act but risk mitigation regarding avifauna need to be adopted for all transmission line projects. An Environmental and Social Policies and Procedures (“ESPP”) addressing HPPTCL’s commitments regarding the environmental and social dimensions of sustainable development and thereby providing Project Developers notice of the general environmental and social requirements that are applied in evaluating prospective projects and monitoring ongoing supported projects is required.
- As a part of routine maintenance, transformer oil is changed every 10-15 years. The used transformer oil is categorized as hazardous wastes as per the Hazardous Waste (Management & Handling) Rules, 2003 and its unscientific disposal in environment may lead to soil and water contamination. The Gas Insulated Switchgear uses SF6 (Sulfur Hexafluoride) as the insulator and is required to be stored and handled at site for various operations and maintenance requirements. SF6 is a GHG recognized under Kyoto Protocol 1997. Mishandling and leakage etc can lead to its escape in the atmosphere causing health and safety hazard besides

contributing to global warming. HPPTCL follows the Rules and international standards for its storage, handling and disposal. Public review and consultations with stakeholders are done and the concerns are incorporated in the designs or are mitigated by keeping the provisions in Environmental Monitoring Plans including budgetary provisions.

- A well-defined responsibility statement is prepared at the organization level to depict apportioning of various tasks between the HPPTCL and its contractors. The same is reviewed periodically on commencement of each project or each contract package to check relevance and suitability with the concerned project, individual work or package. Incidents, accidents or violations of any kind are recorded and reported to Senior Manager, PIU, who further notifies it to relevant enforcing authority. These incidents are documented in the Semi-annual Environmental Monitoring Reports. Reporting formats are also reviewed to include these safeguarding aspects. There is a need to enhance existing environmental Monitoring and Evaluation (M&E) systems to monitor environmental Management System like forest catchments, bio-diversity and climate risk concerns in a web-based Management Information System (MIS) tool or application.

○

SOCIAL MANAGEMENT

h. Land Management

- As per its Environment and Social Safeguards Policy (ESSP), May 2011, HPPTCL adopts a **proactive route alignment approach**¹⁸. The project screening format is available as Annex 3.
- The census and socio-economic surveys¹⁹ are carried out to establish a detailed inventory of the affected households, (specific concern to vulnerable sections of the society (SC, ST, Women Headed Household, Disabled, Elderly Persons, etc) identify the landowners, and physical assets to be affected by the project and develop a socioeconomic profile of the affected households (affected households) and physically displaced persons. Identified impacts include loss of agricultural land, loss of crops, and loss of livelihoods. The surveys also serve as a benchmark for monitoring and evaluation.
- Consultations with potential project affected persons and local people are required to be conducted at each project site to inform people about the objective of proposed works also to know their issues, concerns and perceptions regarding the investments.
- The Resettlement Action Plan includes a monitoring system to ensure that those claimants who are eligible for compensation for land as verified by the DC Office, are compensated during the RAP implementation period.
- An amendment in the Chapter-IV of HPPTCL's Resettlement, Relief, Rehabilitation and Compensation Policy-2011 have been made in the year of 2019 & 2020 are as hereunder:
 - **For Substation**, the compensation on account of purchase of land for sub-stations shall be as per existing policy i.e., Schedule-1 and Schedule-2 of LARR, 2013 as adopted by Govt. of HP or negotiation in exceptional cases. The negotiation committee has

¹⁸ During route alignment, all possible efforts must be made to avoid forest areas or to keep it to the barest minimum. Whenever, it becomes unavoidable, due to the geography of the terrain or heavy cost involved in avoiding it, different alternative options must be considered to minimize the requirement of forest area. The selected routes are easily accessible in dry, rainy, and winter (snow) seasons for maintenance purposes. The sites must be selected where the snow is minimum and far from Avalanche zone. At the planning stage itself, one of the factors that governs the establishment of the transmission line is the infringement of populated/forest/cultivated area and scarce land. Wherever such infringements are substantial, different alternative options have to be considered.

¹⁹ The socio-economic questionnaire also covers the data generation on demography, education, occupation, sources of income, land holding, ownership of dwelling and other properties, consumer durables and consumer assets owned by the households, livestock holding, availability of basic facilities (drinking water, toilet, bathroom, electricity, etc) and their views on the project and option for resettlement and rehabilitation.

been constituted by the Addl. Chief Secretary (Power) to the GoHP and is headed by the Sub-Divisional Magistrate of concerned area. Negotiation committee invites affected parties on a particular date for negotiation by sending a formal invite in writing. The date is decided earlier by having verbal communication directly in person or telephonically with affected parties.

- **Footing of Tower:** The compensation for land shall be 200% of the land value of the latest circle rate without doing any negotiations. The compensation for the loss of crops trees/structures shall be as assessed by the State Agriculture, Horticulture, Forest or Revenue Department as applicable. The land for tower footing shall be secured by doing agreement for long term easement of rights of the land for construction/erection of tower and unhindered access to the land for all time with landowners.
- **RoW:** The compensation on account of loss of crops & trees/structures coming under the route of Transmission Line shall be as assessed by the State Agriculture, Horticulture, Forest or Revenue Department as applicable.
- Social Safeguard staff, prepares semi-annual progress reports on resettlement activities and submits it to head of ESC (i.e., GM Projects), HPPTCL and after review of the same are submitted to the funding agencies. Reports are submitted as per requirement of funding agency (Monthly, quarterly, semi-annual and Final Report etc).
- The HPPTCL monitors the progress of implementation of the resettlement action plan. The scope of monitoring activities is proportionate to the projects' risks and impacts. As well as recording the progress in compensation payment and other resettlement activities. Client prepares monitoring reports to ensure that the implementation of the resettlement plan covers the following actions:

Table 3

No of APs received compensation
No of consultation carried out
No of complains received about the land ownership issues?
No of complains solved?
No of landowners who have received compensation?
How much compensation is disbursed?
Number of sharecroppers and vulnerable HHs receives compensation and livelihood restoration training?
Number of sharecroppers and vulnerable HHs receives livelihood restoration grant after completion of training?

The system of reporting and monitoring on policy implementation and targets is carried out as per compliance requirements of funding agency which is based on predesigned Monitoring Indicators

Table 4

Process Indicators	
Project input, public participation and monitoring	<ul style="list-style-type: none"> • Setting up Social and Environmental Implementation Unit - Deployment of staffs • Training of concerned staff of the HPPTCL • Identification of eligible affected HHs/persons • Procedure of determining loss and entitlements • Development of livelihood and income restoration program • Preparation of disclosure instruments • Disclosure and consultation events Formation of GRC Grievance redresses procedures in-place and functioning • Level of public awareness on RAP policy and provisions Cost of compensation collection by affected households - Monitoring reports submitted

Output Indicators		
Delivery of entitlements, Relocation and Rehabilitation	of and	<ul style="list-style-type: none"> • Number of households compensated and assisted • Amount of compensation disbursed • Number of other benefits disbursed • Number of eligible persons identified and provided additional assistance • Number of vulnerable households brought under additional assistance

i. Labour Management

All the relevant Central and State labour rules²⁰ and acts are recognised by the HPPTCL’s Safeguard policy. HPPTCL will be required to adopt the four labour codes (Code on Wages, 2019, Code on Social Security, 2020, Occupational Safety, Health and Working Conditions Code, 2020, Industrial Relations Code, 2020), once notified by the State Govt. for future assignments. Some of the responsibilities of ESC are to approve the layout of Camp and Plant Sites (including facilities for workers, stockyard, stores, etc) and monitor that Location of Camp and Plant Sites by the Contractor are as per required provisions. See Annex 4 for further details.

In addition, ESC is responsible to ensure:

- The Contractor procures labour licenses and workmen compensation policies for workers.
- Regulatory permissions for Plants are taken. In case material procurement, it is outsourced and a copy of permission (Consent to establish and operate from PCB) of the primary producer should be provided.
- Regulatory permissions for Material Sources require to be complied with. Any mining activity by the Contractor requires mining permission from the state govt.
- Occupational health and safety of the workers are to be followed and site-specific management plans pertaining to any Environmental risks, Health & Safety of labor, Handling, storage, and disposal of solid/hazardous wastes, Emergency response and contingency, Labour training & awareness, etc required to be implemented at project sites.
- Safety during Construction (maintaining PPE discipline and implementation of emergency management plan) are to be followed.
- Monitoring of Environmental attributes (Air, Noise, Water, and soil quality) as per the scheduled frequency and period are to be followed.
- Maintain safe disposal and management of debris (identification of appropriate sites). For excess debris, there should be a rehabilitation plan to include drainage, erosion control, and protection measures of the site.
- At the project sites, Contractor to maintain the wage register, overtime record, medical fitness record, have provisions of accommodation with minimum space with ventilation and washing facilities, sewage and garbage disposal, potable water, cooking and storage facilities etc.

j. Citizen Engagement:

- Citizen engagements are through formal and informal consultations with different project stakeholders, which includes directly or indirectly affected parties²¹, disadvantaged and

²⁰ Building and Other construction Workers’ (Regulation of employment and conditions of service) Act, 1996, The Child Labour (Prohibition and Regulation) Act, 1986, Payment of Wages Act, 1936, Payment of Gratuity Act, 1972, Employees Provident Fund and Miscellaneous Provision Act, 1952, Maternity Benefit Act, 1951, Equal remuneration Act, 1979, Payment of Bonus Act, 1965, Minimum Wages Act, 1948, Workmen’s Compensation Act, 1923 (Amended 2009), The Contract Labour (Regulation & Abolition) Act, 1970 and Rules, Bonded Labour System (Abolition) Act, 1976, Inter-state Migrant Workmen’s (Regulation of Employment and Conditions of Service) Act, 1979 The Employees Provident fund Act and Miscellaneous Provisions act, 1952, and ESI Act, 1948 (Employees State Insurance Act, 1948) etc.

²¹ Affected parties includes affected households, villagers, trustees of CPRs (religious shrines), Educational institutes along the project route/sites etc.

vulnerable people²² and other interested parties²³. The consultations are carried throughout the project cycle.

- Project related information are disclosed to stakeholders and Mechanism for Information sharing is as follows
- HPPTCL has constituted the Grievance Redress Committee (GRC). Presently, the GRM consists of a Grievance Redressal Committee (GRC) headed by a Project head and consists of the head of Finance Wing at the project level, a representative of local Panchayat and affected persons, a representative of ST APs in case of tribal area, a representative of the contractor, and project environment and resettlement and rehabilitation (R&R) staff.
- Minor grievances are raised and addressed at the Project Implementation Unit (PIU) level at field. Grievances not redressed by the PIU staff (field level) are brought to the GRC at the Project Management Unit (PMU) level. The GRC meet every month (if grievances are brought to the Committee), to assess the grievance, and resolve grievances within one month. APs retain the right to utilize the court system at any point.

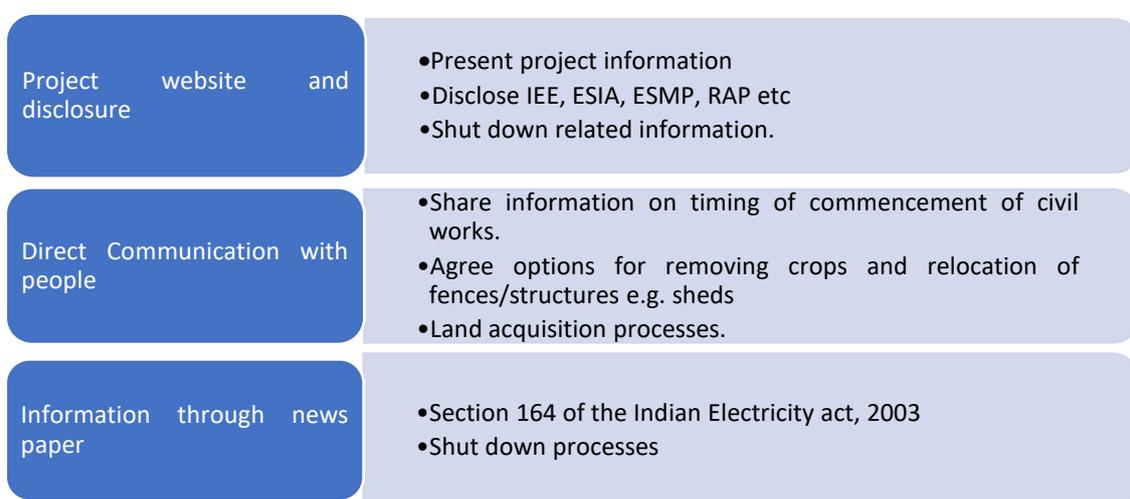


Figure 6: Citizen Engagement Overview

k. Grievance Redressal Mechanisms:

- All the grievance are recorded at project site and reported in semi-annual reports.
- HPPTCL Vigil Mechanism Policy 2016 has been effective, though no cases of corruption or other charges have ever been reported/recorded.
- GRM flow and responsibility matrix of HPPTCL is as follows:

²² Disadvantaged and vulnerable includes vulnerable group of Project affected parties, Below Poverty line (BPL) category as identified by the HP state govt., Scheduled Caste (SC), Scheduled Tribe (ST), Physically challenged, women headed household and old person above 65 years of age.

²³ Other interested parties include village Panchayat members, community leaders, NGOs (operational in project areas), police department, motor vehicle department, HP Pollution control board, State commission for women, HP State Electricity Board, HP Forest department, HP revenue Department, labour department, Archaeological survey of India and funding agency etc.

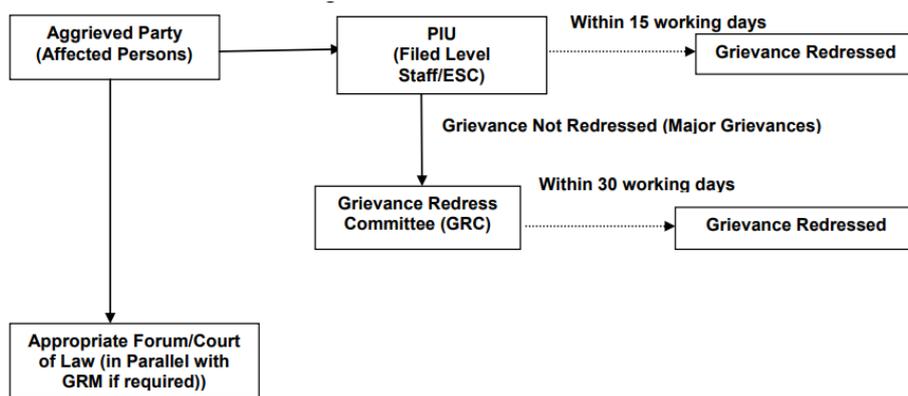


Figure 7: GRM flow

I. Social Inclusion and Gender mainstreaming:

- Within the institution: HPPTCL has 278 Employees and out of the total 17 (6%) are females. 2.1% of the staff in technical roles are women and 3.9% of the staff in non-technical roles are women. Among the women employees, 100% are permanent staff. The Committee to prevent sexual harassment of women at workplaces has been constituted in HPPTCL²⁴. The Committee keeps regular monitoring/interaction with the women employees working at different locations of HPPTCL. No grievances/complaints have been received so far.
- Initial findings from the Gender Study indicate the following strengths and gaps in HPPTCL:

Table 5

Strengths	Weaknesses/Gap	Opportunities
<ul style="list-style-type: none"> • All central and state government policies applicable to government employees • ICC in place • Safe office drops services for women staff working after office hours, informal case to case office adjustments for pregnant staff, office breaks for nursing mothers 	<p>Absence of any formal induction and exposure impacting performance of women staff especially entry level ones and those on secondment positions</p>	<p>Develop and roll out an orientation and training program on power sector ecosystem, its working, intra and inter department coordination especially for technical roles. This can be tracked through indicators like: No. of orientation curriculums developed; No. of trainings organized; %of women staff attended orientation and training programs</p>

m. Overall Social Management Reporting:

²⁴ office order No. HPPTCL/P&A/E-30/2011- 2806-14 dated 06.08.2011

- As per the HPPTCL Policy: HPPTCL is tracking implementation of social safeguards throughout the project cycle of pre-construction, construction, and operations phase. Currently, HPPTCL is tracking 28 projects under this policy and required formats. The categories of reporting

Figure 8: Categories in which HPPTCL tracks social safeguards



- ADB²⁵: HPPTCL has 30 projects funded by ADB for the duration of more than 10 years. These are tracked through a semi-annual social monitoring report. Social Monitoring Report (SMR) enables periodical analysis over the total implementation period of the Project to comply with the approved safeguard documents. This report covers resettlement & social safeguard monitoring results to comply with the spirit of ADB policy to 'enhance stakeholders' trust 'in & ability to engage with ADB & thereby increase the development impact (of projects) in which disclosure of safeguard monitoring is a prominent aspect. HPPTCL is the Executing Agency (EA) of the state government and is responsible for overall execution of the projects under HPCEIP, supervising the implementation of the resettlement plans and ensuring compliance with the loan covenants. The Project Management Unit (PMU) is headed by the Managing Director (MD) and supported by two Directors (one Director (Planning and Contracts) and Director (Projects)). Besides, that HPPTCL has eight PIUs (Gumma, Bhabanagar, Rohroo, Sarabai-I, Sarabai-II, Chambi, Chamba, Lahal) which are headed by the Senior Managers. The Environment and Social Cell (ESC) at the corporate level monitors the policy and implementation of all projects executed by the HPPTCL. The ESC at present comprises of one officer of the Deputy Manager who is supported by Social & R&R consultants and are responsible for day to day functioning of ESC. The HPPTCL also has a designated Land Acquisition Officer, who is responsible for coordination with the local revenue office, district administration, and acquisition of land and payment of compensation.

2.2.2.2 Program Activities and associated Social Impacts

Program Activities	Social Implications	Environmental Implications
Promoting Resource Efficient Investments: Increase in Transformation Capacity (MVA) will require installation of Transmission Lines	The interventions will have adverse impact on community with loss of assets (land, crop, trees) permanently and temporarily; resistance by individual and community to the Right of Way for the transmission lines; increase in litigation over compensation; potential for increase in	HPPTCL's work can broadly be divided into two categories viz. a) Laying of Transmission Line and b) constructing Power Substations. The environmental implications in laying of transmission lines can be categorized into the following headings: a) Diversion of forest land for non-forest use, b) Clearing of trees in Right of Way, c) Clearing of ground vegetation for movement of machinery, d) Soil erosion due to digging for tower

²⁵ \$350 million investments in the MFF to be supported by Asian Development Bank (ADB) will contribute to support the economic development in HP through expanded power supplies. The Tranche 1 subprojects are located in Kinnaur, Mandi, Kangra and Shimla districts of Himachal Pradesh, physical components, consist of 5 proposed new substations/pooling stations and 1 transmission lines. 6. The sub-projects under Loan 2794-IND (Tranche-1) do not have any significant involuntary resettlement impacts, and the Project overall has been categorized as 'B for involuntary resettlement (IR) and 'C' for Indigenous People (IP) in accordance with the ADB's SPS 2009, which applies to this Project.

<p>and construction of sub-stations.</p>	<p>gender based violence during the construction phase with influx of labour; increase demand on local resources (water, fuel wood, etc) with increased labour force that may lead to conflicts with host population. The capacity to manage social risks and report requires substantial strengthening.</p>	<p>foundation. The environmental implications related to setting up of sub-stations are: a) clearing of ground vegetation, b) used transformer oil, c) geological safety, soil erosion and landslides, d) SF6 leakage during storage and erection of switchgear, e) noise and vibration. All above need data based management and monitoring tools to strengthen the existing system.</p>
<p>Strengthening governance capacities of power utility (training, GRM system, procurement manuals, transition to SAP platforms, office automation, web-based system for real time monitoring)</p>	<ul style="list-style-type: none"> • Strengthening capacity of staff following the need assessment with special focus on women to develop and implement a structured training plan. • Review of existing E&S norms and system , gap analysis and upgradation. 	

2.2.2.3 Assessment Against Core Principles

Core Principle #1: Program E&S management systems are designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects.		
Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
<ul style="list-style-type: none"> The legal framework at national and state level is robust. HPPTCL has to an extent aligned its internal policies to meet the requirement of both National and state regulations. As per Environment and Social Safeguards Policy (ESSP), May 2011, HPPTCL is to ensure that development of power transmission system network in environmentally and socially sustainable manner and public disclosure for transparency and mainstreaming the environmental and social concerns in operations Environment and Social Cell (ESC) at the Corporate Level to manage safeguard compliance 	<ul style="list-style-type: none"> The information on E&S is available as independent project reports and details vary as per the requirement of the donor To assess the overall E&S performance of HPPTCL, combined reports on performance against key social indicators bi-annually or annually are not available Available documentation provides negligible information to track accessibility, efficiency and effectiveness of the GRM 	<ul style="list-style-type: none"> Cumulative impact assessment to review E&S risk management and outcomes across all projects Adoption of a uniform ESPP that aligns with the requirements of National and state laws and international standards. Adopt a uniform Stakeholder Engagement Plan for structured engagement and strengthen systems for reporting Strengthen M&E system to track preparation and implementation of social risk management on real time and integrate with the DoE's M&E system to support sector level reporting. Strengthen the system for an integrated GRM which uses multiple mediums (phone, postal, email, mobile app, face to face) to register complaints, track them, have a responsibility matrix, escalation mechanism, redressal timelines and closure protocols.
Strengths	Weakness/Gaps	Opportunities/Recommendations
ENVIRONMENTAL MANAGEMENT		
<ul style="list-style-type: none"> ESMF is in place for assessments of potential impacts. The prescriptive framework also covers international treaties and convention signed and ratified by India ESSP policy in place, spells out identification of mitigation measures Screening is done for proposed projects to find out the extent and type of Environmental Assessment required. A format used for screening is available (enclosed as annexure) but should be specifically designed to promote E&S sustainability in the Program by incorporating the principles of avoid, minimize or mitigate adverse impacts and promote informed decision-making in the process. Policy considers environmental implications of location, terrain and sensitive areas in impact identification and mitigate these with 	<ul style="list-style-type: none"> No umbrella act like EIA notification is applicable in Indian context therefore it is important that existing systems are implemented effectively. HPTCL has required uniform environmental management and institutional systems in place to address environmental risks and impacts those will be further improved and uniform system in form of Environmental Systems Policy Procedures (ESPP) is being introduced as per Indian power sector company ;Power Grid to 	<ul style="list-style-type: none"> Align ESPP with National and state laws and sustainable development goals to manage social and environment risks. Biodiversity impact assessment needs to be made part of all transmission line projects in HP, thereby necessitating a detailed framework in this regard. The ESMF prepared for multilateral funding agencies need to be made applicable for even state/government funded projects. Monitoring needs to be strengthened and integrated with DoE Dashboard

<p>innovative, practical engineering solutions. Impacts to Biodiversity, especially avian species are also assessed and mitigated as applicable.</p> <ul style="list-style-type: none"> • The site for substations is selected so that it is geologically stable and safe, so that cutting and levelling for construction of substation does not lead to landslides. • At least three alternatives for the project’s location or route are examined and their potential environmental impacts identified and the alternative having the least impacts is selected. • Biodiversity analysis is not a regular practice and is done only when mandated by a regulatory requirement. • IEE conducted for the proposed project site to describe potential direct or indirect impacts and risks to physical, biological and socio-economic environment • Felling, pollarding and pruning of tree for electric clearance and/or movement of machinery, whenever necessary, is done with permission from the local forest officer with due mitigation and abatement measures as may be prescribed. • There is clear depiction of Role and Responsibility with emphasis on adherence to their ESSP policy for all officials including dedicated personnel for environment. • HPPTCL discloses to the public contents of its field projects, their objective, scope of work, survey results and likely impacts as may be assessed and obtain their input before finalizing the same. 	<p>understand and address any such risks and impacts.</p> <ul style="list-style-type: none"> • Present frameworks are mostly used for multilateral funding projects and bio-diversity studies are only done when mandated by regulatory agencies. • ESMF and ESPP need further strengthening to bring it to par with multilateral funding agencies and to be made applicable across all activities irrespective of regulatory or funding requirements. • Though required environmental skill are there in place but HPPTCL need guidance on bio-diversity management and safety. 	<ul style="list-style-type: none"> • Proper documentation for handling and disposal of hazardous wastes and maintaining records on emission of GHGs is suggested • For Capacity Development of E&S risk management following actions will be taken up as part of the program (a) Hiring of key Environmental expert with independent charge in HPPTCL as staff and need based hiring of bio-diversity and safety experts, (b) training need assessment, prepare training calendar including target group and its implementation • Adopt web-based Monitoring and Evaluation (M&E) systems to monitor E&S risk management for evidence-based reporting.
<p>Core Principle #2: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing</p>		
<p>Strengths</p>	<p>Weakness/Gaps</p>	<p>Opportunities/Recommendations</p>
<p>ENVIRONMENTAL MANAGEMENT</p>		
<ul style="list-style-type: none"> • ESSP policy speaks of measures to avoid, minimize and mitigate any potential adverse impacts on any sort of physical cultural property and avoiding any sort of destruction or damage to them by using field-based surveys that employ qualified and experienced experts during the environment assessment. • HPPTCL adopts a proactive/ route alignment/ site selection approach. They are done on walk over surveys, usage of tools such as forest atlas, revenue papers, Survey of India maps of the area. HPPTCL makes all possible efforts to avoid eco-sensitive areas, forest areas, or to keep it to the barest minimum. 	<ul style="list-style-type: none"> • There are gaps in existing ESSP and ESMF to avoid, minimize and mitigate environmental and bio-diversity risks and impacts. • The program is unlikely to have an adverse impact on critical natural habitat and physical cultural heritage. • System lack uniform approach of E&S screening and management and are dependent on regulatory or funding requirements 	<ul style="list-style-type: none"> • ESSP and ESMF need to further strengthen to align best practices to (a) design and screen the activities to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources;(b) avoid, minimize, or mitigate adverse impacts integrating bio-diversity impacts; (c) promote informed decision-making relating to Program’s E&S effects; and (d) implementing evidence-based evaluation and monitoring arrangements.

<ul style="list-style-type: none"> • All efforts to minimize the involvement of trees falling in RoW is made. HPPTCL tries to minimize number of trees required to be felled even if their cost has been paid. Pruning of trees will be done wherever required instead of heavy lopping or felling. • To minimize damage to the environment HPPTCL uses manual stringing in thick forest and on slopes wherever possible. Maximum working is done during non-monsoon season to avoid soil erosion • The work force is prohibited from unnecessarily disturbing the flora and fauna of the work area. The contract conditions incorporate necessary provisions to this effect. • Sites for sub-stations selected very cautiously so that critical habitat areas are avoided. • To avoid and minimize the potential impacts on avifauna viz; Risks of Collision, Risks of Electrocution, Disturbance and Habitat Destruction of avian species, detailed biodiversity impact assessment²⁶ are carried out. Suitable mitigation measures viz; installation of Bird flight diverters, wherever required, are in practise. • There are provisions for the use of ‘chance find’ procedures and ensures the management/ conservation approach for any such materials discovered during project implementation. 		
<p>Core Principle #3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.</p>		
Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
<ul style="list-style-type: none"> • Adequate legal provisions in the national and state laws which are a part of the bid documents for all projects • Labour record in terms of categories like migratory and local are maintained at site. Monthly reports submitted from each of the projects includes key performance indicators on labour management 	<ul style="list-style-type: none"> • No system available at state level to assess the employment generated, disaggregated data on categories of by the projects • Data on labour camps/conditions • Labour GRM and GBV 	<ul style="list-style-type: none"> • HPPTCL can pilot and roll out ICT tools for compliance labour law which provide systematic, simple, and real time tracking by the contractors and Utilities.

²⁶ HPPTCL carried Biodiversity impact assessment for one of the transmission lines projects (funded by KfW), since the line was routed nearby a wildlife sanctuary, which is also an important bird area. Bird flight diverters were proposed in river crossing areas to mitigate any impacts to the avian species. Later, such measures of installing bird flight diverters were proposed at river crossings in all other transmission line projects, funded by KfW.

<ul style="list-style-type: none"> On the project sites, Contractor to maintain the wages register, medical fitness record, provide accommodation with minimum space with ventilation and washing facilities, sewage and garbage disposal, potable water, cooking and storage facilities etc. The ESMP includes measures on Occupational Health and Safety of workers at work sites for handling material, disposal of hazardous material, emergency response, awareness and training on health and hygiene, maintain PPE Discipline and having provisions of well stocked first-aid kits. Information/caution boards are displayed at work zones, storage areas and labour camp sites. Project specific record of accidents²⁷ (major, minor, fatal and near misses) are recorded and reported in the semiannual reports on Environmental monitoring. It is ensured that Contractor has GRM for workers/labour and its records are also maintained for inspection and for any recommendations. For GBV, awareness is imparted to workers and protocols are also established by HPPTCL, if there exists any GBV hot spots near project sites. Separate accommodation facilities are suggested/recommended for labour in couples and also separate toilets provisions are ensured for male and females at work sites. Creche²⁸ facilities are also encouraged, where labour is with kids. Land used for construction camps, stockyards etc are rehabilitated to its original use after completion of the works. HPPTCL ensures maintaining safe distances by keeping clearances (horizontal & vertical) from ground and adjacent structures in accordance with Indian Electricity act (Rule 77 & 80) to reduce exposure to electromagnetic fields and any other occupational health impacts. 	<ul style="list-style-type: none"> Risk assessment of labour influx and impact on host communities 	<ul style="list-style-type: none"> The P4R also provides an opportunity to streamline Labour Management Procedures, Labour Management Plans and Labour Influx Management to ensure safety of individual, direct, indirect, contracted, sub-contracted and community labour as well as management of risks in case of labour influx and impact on host communities.
Strengths	Weakness/Gaps	Opportunities/Recommendations
ENVIRONMENTAL MANAGEMENT		
<ul style="list-style-type: none"> As a part of HPPTCL's procedures and practices, public and worker safety are an integral part. Project design includes measures to avoid, minimize, or mitigate community, individual, and worker risks when program activities are located within areas prone to natural hazards or other severe weather 	<ul style="list-style-type: none"> There are gaps in the existing system of evidence and data-based reporting on health and safety protocols. There is also a gap in training in risk assessments for handling, storage and disposal 	<ul style="list-style-type: none"> Existing health and safety protocols to be complied and reporting of mechanisms need to be strengthened. HPPTCL needs to adopt EHS protocols integrated in design and data based reporting system in contract management.

²⁷ Two fatal accidents were reported on project sites in last five years and claims were settled with the family members of deceased in reasonable timeline.

²⁸ In many of the HPPTCL's projects, it has been practiced that one female alternatively sits back at camp site to look after all the kids and it is ensured that the female gets paid for wages

<p>or climate events. HPPTCL's ESSP policy applicable in this regard. Displays of cautionary/ informative signage's are also done.</p> <ul style="list-style-type: none"> • During the design, the Transmission line and Substation equipment are rated to ensure that EMF is within the permissible limits as specified in the EHS guidelines. Design of substations is made so as to include modern fire control systems/firewalls. Provision of firefighting equipment are located close to transformers, switchgears etc. HPPTCL ensures that first-aid facilities are mandatorily be made available with the labour gangs and ambulance/doctors on call from nearby towns, when necessary. • Promotes and ensures the use of good international practices during storage, transport, and disposal of hazardous material Waste management and sanitation facilities are made available at sub project sites in a compatible manner. Waste oil at substation sites is collected and disposed through a registered recycler²⁹. • Awareness sessions for work site safety for workers is regularly conducted at HPPTCL. It also ensures that Contractor imparts the required trainings to the workers involved in procurement, storage, transport, use and disposal of hazardous chemical in accordance with international guidelines and conservations. • HPPTCL adopts environmentally sensitive labour management with periodic health checks if the workers engagement is prolonged. It maintains workmen's health and safety as a priority as its personnel are exposed to live EHV apparatus and transmission lines. • HPPTCL possesses the system to implement the environmental safety guidelines laid in their Transmission Projects. (a) For risk of accidents, contamination of diseases (e.g., Covid-19) and exposure to electromagnetic fields along the alignment. (b) or for risks dues to electrocution, lightning, fires, HPPTCL do not allow the houses to be within the RoW (right of way) of the Project. • Periodic monitoring of Environmental attributes (air, noise, water & soil) is also carried as per ESMP provisions. 	<p>of solid/hazardous waste, emergency responses.</p>	<ul style="list-style-type: none"> • Though ESC is responsible for handling, storage, and disposal of solid/hazardous wastes, Emergency response and contingency, it is apparent that a Safety officers/ personnel responsible for implementation of mitigation measures should be separately engaged and trained demystifying risks in case systematic approach on management mechanisms are not adopted. • Provisions for public and worker safety as part of the bid / contract documents to be implemented. Recommendation is of hiring safety officer may be in place either with sole responsibility or co-designated. • Streamline and integrate reporting practices that will guide operational practices and report (a) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials used; and (d) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards incorporating recommendations from District Disaster management Plans and other safety issues (c) emergency response systems and accident and incident reporting.
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²⁹ Addresses of registered agencies dealing in Collection & Transporter of used oil in HP are; 1) Keshav Enterprises, Village Chuhuwal, Near Shiv Mandir, Tehsil Nalagarh, Distt. Solan (HP), 2) Shivalik Inc., H. No. 38, Housing Board Colony, Sanjauli, Shimla (HP) and Village Sharmila, Po Moahari, Tehsil Theog, Distt. Shimla (HP) and 3) Shivalik Solid Waste Management Ltd (Unit-II), Village Shabowal, PO & Tehsil Nalagarh, Distt. Solan (HP)

Core Principle #4: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards		
Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
<ul style="list-style-type: none"> • HPPTCL monitors and measures the progress of implementation of the resettlement action plan. The scope of monitoring activities is proportionate to the projects' risks and impacts. • HPPTCL also has a designated Land Acquisition Officer, who is responsible for coordination with the local revenue office, district administration, and acquisition of land and payment of compensation • Recording the progress in compensation payment and other resettlement activities, HPPTCL prepares monitoring reports to ensure that the implementation of the resettlement plan has produced the desired outcomes³⁰. 	<ul style="list-style-type: none"> • The GRM system is relatively weak to track the complaints 	<ul style="list-style-type: none"> • The power sector to take cognizance of the RFCTLARR 2013 such that the existing frameworks, systems and practices across the sector are aligned to the provisions of RFCTLARR 2013 • HPPTCL already has a comprehensive policy for land acquisition and resettlement activities • Consolidated reporting at institutional level on R&R including complaint resolution to be made available at annual basis
Core Principle #5: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (hereafter referred to, interchangeably, as Tribals, Tribal Groups or Tribal Populations), and to the needs or concerns of vulnerable		
Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
<ul style="list-style-type: none"> • Cultural impacts (ancient architecture & monuments, tourism, arts, customs, ritual) are captured and dealt/mitigated as per the available applicable laws including consultation outcomes, especially in case of social rituals. • HPPTCL's Environment and Social Safeguards Policy principles provide that HPPTCL shall take due precautions to avoid disturbance to human habitations, tribal areas and places of cultural significance and minimize the same wherever inevitable. • The ESSP also provides that HPPTCL will pay special attention to marginalized and vulnerable groups and secure their inclusion in overall public participation. 	Information on implementation of targeted schemes for Scheduled Tribes on the utility's projects is not available.	Track implementation of schemes related to Scheduled Tribes on the utility's projects
Core Principle #6: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes (Not Applicable)		

³⁰ As per compliance requirements of funding agency, social consideration on involuntary resettlement RP policy and targets, the RAP implementation process is monitored and evaluated through Process Indicators and Output Indicators

HPPCL

Himachal Pradesh Power Corporation Limited (HPPCL) was incorporated in December 2006 under the Companies Act 1956, with the objective to plan, promote and organize the development of various aspects of hydroelectric power on behalf of Himachal Pradesh State Government (GoHP). HPPCL is a fast-upcoming power generating utility with all the Technical and Organizational capabilities at par with other generating companies in the Country. Company's mandate is the power generation through hydro, wind, solar and/or thermal. The table below summarizes the expanse of HPPCL projects:

Table 6

Projects Under Operation	Projects Under Construction	Projects Under Preconstruction	Projects Under Investigation	Other Projects due
Kashang HEP (Stage-I) 65 MW; Sainj HEP (100 MW); Sawra Kuddu HEP (111 MW); Berra Dol Solar Power Project (5 MW)	Shongtong Karchham HEP (450 MW); Kashang Stage-II&III (130 MW)	Renukaji Dam Project (40 MW); Chanju-III HEP (48 MW); Deothal Chanju HEP (30 MW)	Thana Plaun HEP (191 MW); Triveni Mahadev (75 MW); Kishau Dam Project (660 MW); Gyspa Dam Project (300 MW); Kashang Stage-IV HEP (48 MW)	Nakthan HEP (460 MW) due in 2028; Khab HEP (305 MW) due in 2030

The prospective location and potential of hydro power projects in the state of Himanchal Pradesh were initially identified by the investigation wing of HPSEB across the five major river basins Satluj, Beas, Ravi, Chenab and Yamuna. The total hydro power potential of these river basins in the state is approx. 24000 MW. HPPCL in the year 2009, was allotted 22 nos. of hydro power projects of 2070 MW capacity. The development of hydro projects requires a structured approach to address the E&S issues. Accordingly, the following project Life Cycle is followed:

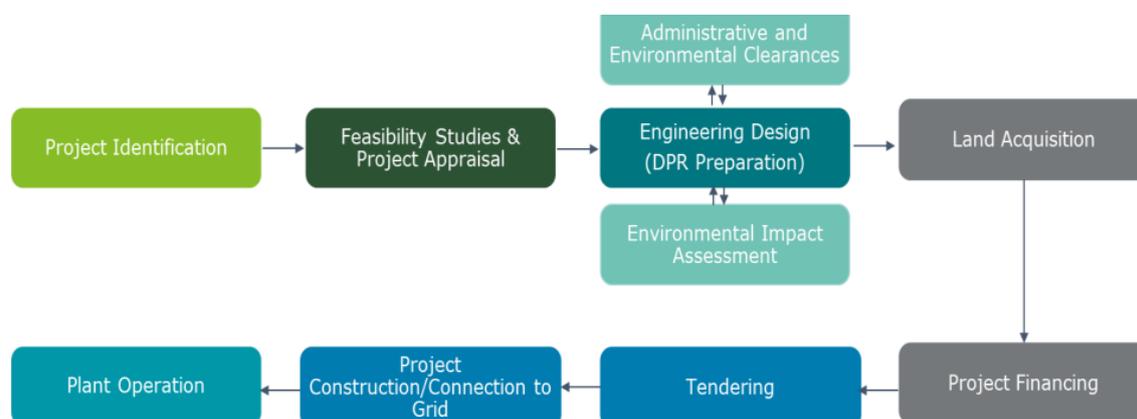


Figure 9: HPPCL Project Life Cycle

2.2.3.1 Institutional structure, procedures, practices, and performance

Himachal Pradesh Power Corporation Limited (HPPCL) has an Environment Policy for Hydro Power Projects in place since May 2017. The policy is guided by the principles of sustainable development, minimum environmental setbacks and economic efficiency and viability. The policy emphasizes on conservation of environmental resources, good governance practices, regeneration of catchment areas, education, awareness and outreach on hydropower projects, and livelihood security.

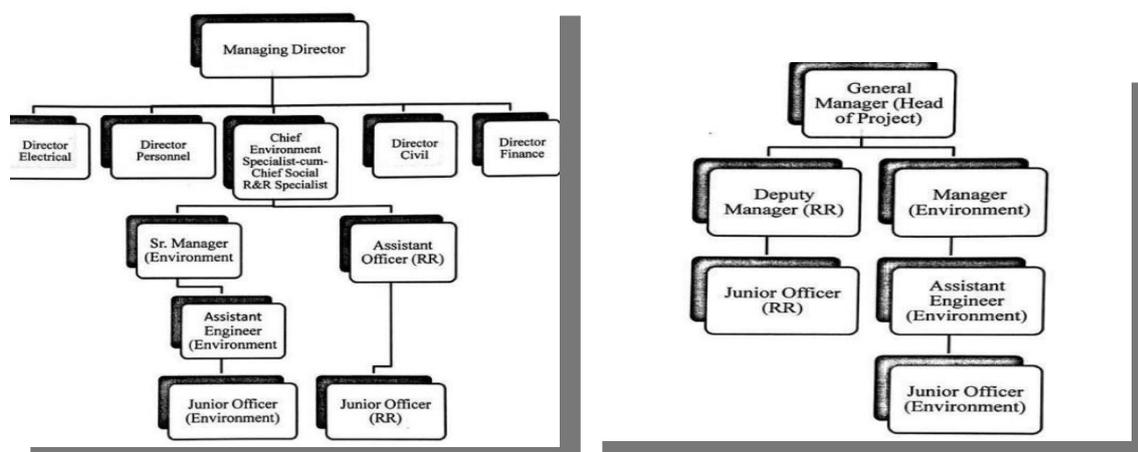


Figure 10: Organogram for E&S (corporate and project level)

To manage Social and Environmental safeguard issues, HPPCL has established an Environment and Social Management Unit (ESMU), headed by the Chief Environment cum Social and R&R Specialist at Corporate Level. At Project level, there are also dedicated staff with well qualified personnel. HPPCL have clear institutional responsibilities and resources to support implementation of environmental management plan and as well as Rehabilitation & Resettlement Plan. The ESMU is housed with expertise to ensure that the EMP when implemented meets all the targeted objectives and address all environmental issues of Himalayan Eco-fragile region.

- ESMU is responsible for documentation, preparation, implementation and monitoring of EIA and ESMP.
- ESMU is responsible for implementation of EIA, ESMP and R&R Plan
- HPPCL has moved away from the conventional method of assessing impacts on a project-by-project basis to a river basin approach. HPPCL follows rules spelled out in the Hydro Power Plan, 2006 for identification of measures to mitigate adverse impacts and make financial provisions for the same
- At present two models are being adopted viz. area development, revenue sharing or benefit sharing: (i) **Local Area Development Fund** - during construction phase HPPCL contributes 1.5% of project cost and after commissioning of the Project, the Project developer contributes 1% free power for LADF over and above the 12% rates of royalty agreed to be paid to the State Government. (ii) **Provision under Hydro Power Policy**: After commissioning of the project, cash equivalent to 100 units per month is distributed to PAFs through LADC for 10 years period after commissioning of the Project. (iii) In future when corporation starts earning profit the third model of Corporate Social Responsibility will be operationalised as per the CSR policy which is already in place.

ENVIRONMENTAL MANAGEMENT

- Environmental regulations:** HPPCL follow the regulatory framework of obtaining mandatory clearances of hydropower projects with more than 5 MW capacity either from the State Environment Appraisal Authority at state level or by Environment Appraisal Authority constituted at Central level by MoEF&CC, GoI. These environmental clearances are accorded under EP Act, 1986 and then it goes under second level of procedure, where HPPCL seeks 'Consent to Establish'

prior to start the project activities and 'Consent to Operate' after commissioning of the project from State Pollution Control Board, under Air and Water Acts. At this stage SPCB checks if the conditions stipulated in clearance letter of State Environment Authority or MoEF, have been duly complied with or not. This straight-jacket approach severely hinders any environmental infractions. HPPCL have mechanisms in place those ensures preparation of EIA and EMP in coordination with the accredited consultants. Projects were considered or cleared only after thorough examination from Central or State Authorities with conditions to be complied to minimise or address environmental risks and impacts. The Environment Policy for Hydro Power Projects of HPPCL clearly states the different strategies, actions and policy initiatives that ensure the execution of its projects in complete harmony with nature and its operation on a sustainable basis. An important such initiative is that HPPCL shall strive to site its projects such that the ecology of any environmentally sensitive zones or high value conservation areas is least affected. Species with high genetic value are identified as 'Incomparable Value' and it is ensured to not affect such species or their habitat in any way. Though such regulatory measures are available for large hydropower projects, but no clear policy exists for other small less than 5MW projects or any activities like solar that is planned to be developed, which creates the need for a comprehensive environment and social management and monitoring plan.

In Chanju-III HEP, Project authority has a dedicated Environmental and Social Management Cell (ESMC) at the project site with requisite manpower (can be increased or decreased depending upon the requirement). The task of the Environmental and Social Management Cell is to coordinate various environmental activities, to carry out environmental monitoring and to evaluate implementation of environmental enhancement measures for positive impacts and environmental mitigation measures for negative impacts. The ESMC reports to the Project head who has adequate powers for effective implementation of the Environmental and Social Management Plan (ESMP) in various phase of project development. The Contractor also maintains Environmental and Social Management Cell (ESMC) at project level, which consists of Environment, Social & Safety officers and assists and reports to concerned officers of ESMC of HPPCL at project level. HPPCL also maintains an Environmental and Social Management Cell (ESMC) at Corporate Office level which is headed by Chief Environment and Social Specialist. This cell keeps overall monitoring on the compliance of ESMPs in all the ongoing Projects and also maintains liaison with the other departments of State Govt. entrusted with the ESMP functions to ensure their time bound implementation.

The Environment Management Plan (EMP) at HPPCL for Chanju-III HEP for example elucidates the steps to be taken for compensatory afforestation and biodiversity conservation plan, whereby measures like habitat improvement programs, anti-poaching measures, conservation plan for Schedule-I species, conservation of floral species, monitoring and budget of biodiversity conservation plan are discussed in detail. The need for green belt development plan and its structure, control of water, air and noise pollution during the construction and operation phase, management of sand and minimum flow are reviewed in detail in the EMP. Muck Management Plan, Restoration

- b. **Environmental Procedures and Practices:** HPPCL ensures to site its projects in such a way that the ecology of any environmentally sensitive area like eco-sensitive zones, Ramsar sites, wildlife sanctuaries, national parks etc., are least affected or avoided. It has applied this principle into action at Renukaji and Nakthan hydropower projects, where the capacity of the project was reduced to avoid impact on high value conservation areas. In project sites designs are tailor made to reduce impact on biological resources to minimum possible. In two of its upcoming projects viz. Chanju-III (48 MW) & Deothal Chanju (30 MW) road construction has been avoided (except for power houses requiring transport of heavy equipments) to reduce the tree cutting to minimum by providing ropeways for men and material transport. Three stages of Kashang Hydroelectric

Project were integrated to have single power house to avoid independent components entailing wider impacts. HPPCL pays explicit attention to the potential impacts of development projects on biodiversity resources and natural heritage. In appraisal of such projects by cost-benefit analysis, it assigns values to biodiversity resources at or near the upper end of the range of uncertainty. Ancient sacred groves and “biodiversity hotspots” are treated as possessing “Incomparable Values”.

- c. **Environmental Monitoring and Reporting:** For the purpose of assessing the final impacts of the hydropower projects on the ecosystem, and the effectiveness of the management plans implemented, HPPCL uses Remote Sensing technology integrated with Geographical Information Systems (GIS) to prepare a Post-construction EIA report. This study report helps in dispelling all the doubts harboured by various stakeholders including the project affected population against the hydro power projects as ecology changer and environment spoiler. Six monthly monitoring reports are submitted to the MOEF and its Regional Office Chandigarh for review. The third party monitoring is also in place, those are done by Department of Science and Technology and State Pollution Control Board. The proforma for Environment Monitoring Reporting and Social Safeguard Reporting as shared by HPPCL (for Changu-III HEP) are very extensive and cover all the important topics to be brought under discussion, thereby highlighting HPPCL’s commitment towards honest implementation of the EMP. An Environment and Social Management Manual providing step-by-step instructions on how to develop and implement a management system addressing common environmental, occupational health and safety (OHS), labor, and community risks and impacts that such projects are likely to face should be prepared.

SOCIAL MANAGEMENT

- a. **Land Management:** For construction of a hydro power plant besides government land, large tracts of private land are also required to be acquired from private persons. The construction of the project involves under-ground works, transportation of large quantities of material and submergence of inhabited areas due to construction of Dam. All these activities are likely to have an impact on the lives of people living in the area. The land acquisition activity and associated rehabilitation and resettlement activities are undertaken as per the acts and policies of central and state governments. The land acquisition activities are carried out as per the Gol’s guidelines prescribed under Land Acquisition, Rehabilitation and Resettlement Act, 2013. Further, the hydro-electric projects in the state are also mandated to follow GoHP’s guidelines for Local Area Development Fund (LADF) which mandate disbursement of a portion of project cost in the project affected area. The figure below enlists the stages under resettlement and rehabilitation followed by HPPCL:

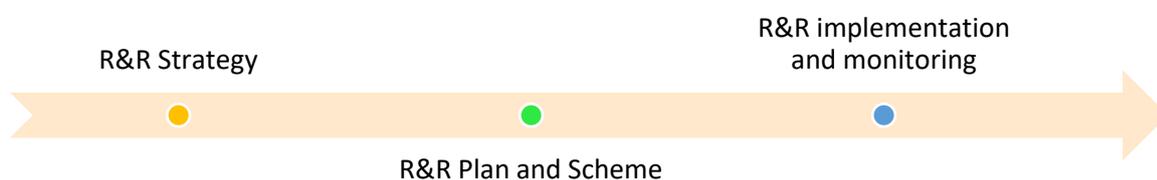


Figure 11: Stages of R&R

- To protect the interests of the project affected people and landless family (and any other family affected during construction stage of the project), HPPCL prepares a scheme for Resettlement and Rehabilitation of the persons incorporating adequate arrangements for their resettlement and rehabilitation. The scheme is prepared on account of acquisition/ for

the construction taking into consideration the National Rehabilitation and Resettlement Policy³¹ and National Hydro Policy 2008³². The NRRP was applicable for projects where over 400 families in the plains or 200 families in hilly or tribal or Desert Development Program (DDP) areas are displaced. However, the basic principles can be applied to resettling and rehabilitating regardless of the number displaced.

- **The R&R strategy covers:**
 - Project Affected Family suitably and adequately compensated to ensure replacement of the assets lost or acquired.
 - Local population of the Project Affected Area provided guidance and counselling education through scholarships, professional trainings in different trades like Electrician, Draughtsman etc in Industrial Training Institutes, training in common occupations like Agriculture, Horticulture etc
 - General Development of the project area by building or improving infrastructure such as roads, footpaths, bridges, water supply, irrigation through public participation and community development works etc.
 - Creating opportunities of employment for local people through self-employment schemes and direct or indirect employment in project activities.
 - Maintaining a friendly contact with the public through regular meetings, Public Information Centre, printed material, PAF identity card, functions etc.

- **The objectives articulated in R&R Plans include:**
 - Compensation to adversely affected by construction of the project.
 - Improve the quality of life of the people of the area through better infrastructure, sustainable income and better skills
 - To create a good will for the organization and have a good long-term relationship

- The **R&R Action Plan** is therefore formulated with an objective to resettle the families rendered landless or affected families whose land/house/shop is acquired and to rehabilitate them in such a manner that they improve or at least regain their previous standard of living, earning capacity and production level. Besides, it is imperative that the transition gap between displacement and rehabilitation is to be reduced to the minimum possible extension. R&R plan preparation and implementation is based on the principles of wide stakeholder participation, support of the affected and provide for their extensive involvement in the projects through public hearings, Gram Sabha meetings, inclusive committees on resettlement and grievance redress etc. The HP Hydro Power Development policy provides for transparent arrangements and processes concerning the technical and financial aspects of projects through the MoUs/Agreements with the project developers. It also provides for consultation with the local communities by specifically requiring that an NOC by the Gram Sabhas concerned be obtained by the Project Developers.

- **Negotiated Settlement:** Before issuing the preliminary notification under the prevailing Act, HPPCL approaches the respective landowners for amicable settlement of rates of the private land to be acquired. If private landowners agree for the rates being offered, then HPPCL submits proposal to the Board of Directors for constitution of negotiation committee. The

³¹ HPPCL R&R Plan was approved by State Govt during 2009 and Land Acquisition Act, 2013 or LARR Act or RFCTLARR Act came into existence during 2013. Despite that the financial provision of HPPCL R&R Plan different from the provision of 2013 Act like employment provision, grant for house, grant for small artisans etc

³² Standard R&R Plan of all projects of HPPCL as revised following GoHP Notification up to 2nd April 2012. Ver.- Final. 7.2.2.4 To ensure that rights of individual and society particularly those belonging to the weaker section of the society are adequately protected.

Management after receiving the request, in pursuance to the provisions of para 20 & 21 of the Financial Commissioner's (Revenue) Standing Order No. 28, constitutes Negotiation Committee for negotiating the rate (s) of private land proposed to be purchased. Each landowner is consulted in an open meeting³³ and minutes of the meetings are drawn. Following parameters are taken into consideration while deciding the rates: i. Circle rates; ii. Average of sale deeds (higher side) of previous three years in the vicinity of the area; iii. Potential yield of the land. The rates recommended by the Committee are subject to approval of Board of Directors of the Corporation. After approval of rates, HPPCL purchases land by way of sale deeds.

- **Impact Assessment of Land acquisition:** In addition to internal monitoring (monthly reporting of R&R), External Monitoring of land acquisition and R&R activities was also carried out by independent External agency as per requirement under ADB projects³⁴.
- An External Monitoring Report of Chanju-III HEP (48 MW) revealed that private land measuring 2.67 ha was purchased by HPPCL based on negotiate rate @ Rs. 14,75,000/- per bigha. The land compensation paid by HPPCL was almost five to seven times higher than the circle rates. It is confirmed in the report that the payment made by HPPCL is higher than Compensation paid under RFCTLARRA 2013. The replacement cost including rehabilitation benefits as enshrined in the act was fully paid to all landowners and the landowners were not negatively impacted by the direct land purchase.

Base Line Survey: A base line survey was conducted in the project affected area inter alia covered: (i) Information about families living in the area, their occupation, income, education, housing available and dependence on common resources (ii) Available infrastructure and resources (iii) Land holdings (iv) Members of the family who are permanently residing engaged in any trade, business, occupation or vocation in the affected area (v) Families who are likely to lose, or have lost, their house, agricultural land, employment or are alienated wholly or substantially from the main source of their trade, business, occupation or vocation (vi) Agricultural labourers and non-agricultural labourers (vii) Families belonging to the Scheduled Caste or Scheduled Tribe categories (viii) Vulnerable persons such as the disabled, destitute, orphans, widows, unmarried girls, abandoned women, or persons above fifty years of age; who are not provided or cannot immediately be provided with alternative livelihood, and who are not otherwise covered as part of a family. Families that are landless (not having homestead land, agricultural land, or either homestead or agricultural land) and below poverty line, but residing continuously for a period of not less than three years in the affected area preceding the date of declaration of the affected area; and (x) Scheduled Tribes families who are or were having possession of forest lands in the affected area prior to the 13th day of December 2005

- A **Social Impact Assessment Study** is carried out in the project affected area through an independent, professional agency to determine the impact that the project can have on the people, their lives, the community, and the society. This study is done before the start of work on Main Project Components. The study will cover impact on public and community properties (particularly common grazing grounds, forest right); available infrastructure like roads, water supply, irrigation schools, medical facilities, fairs and festivals power supply, places of worship,

³³ Refers to a meeting organized for all residents in the PAA

³⁴ As a best practice under R&R measures, HPPCL has done the External Monitoring for its projects viz Kashang HEP Stage-1, Sawra-Kuddu HEP, Sainj HEP, Shongtong-Karchham HEP and Chanju-III. During the external monitoring, it has been established that HPPCL has taken up various short term and long terms safeguards measures for the betterment of Project Affected Families. The External Monitoring Report of Sawra Kuddu HEP has already been provided for reference. The external monitoring has been done in those projects where almost all the R&R benefits have been given to the entitled beneficiaries. In the remaining projects the same shall be done after completion of all the R&R safeguard measures and after taking the approval of HPPCL Management.

burial and cremation grounds, etc. access to adjoining villages across the water source being dammed or diverted, livelihood sources; reduction in land and other natural resources etc. Public consultation will be done along with the public hearing for EIA or separately. The R&R Plan is appropriately modified if need is felt after the SIA report is obtained.

- **Local Area Development Fund (LADF):**

The GoH, Department of Power notified the revised guidelines³⁵ for Local Area Development Fund on 5th October 2011. The Hydro Power Policy, 2006 provides that (i) 1.5% of the final cost of the projects above 5 MW and one percent of the final cost of projects up to 5 MW shall be contributed to LADF and (ii) additional 1% (one percent) free power after commissioning of hydro power projects shall be earmarked for the LADF to provide a regular stream of revenue for income generation and welfare schemes, creation of additional infrastructure and common facilities on a sustained and continued basis over the life of the project.

- GoHP may provide a matching of 1% from its share of 12% free power. This entire contribution towards Local Area Development

*New provisions under LADF guidelines: Under the 2014 notifications, some amendments were proposed to expedite the project implementation process like discontinuity of mandatory NOCs from different departments such as IPH, PWD, Revenue, Fisheries and Wildlife Department; clearance and compliance of norms and conditions by the developer; making consultations more effective rather than one of events for signing NOCs; Separate Joint Inspection Committees replaced by one joint inspection committee. This streamlines the process of clearance, monitoring, and coordination among all relevant departments. Further, it no longer mandates NOCs from the Gram Panchayat (GP) prior to commencement of civil works, instead it proposes one consultation with GP in all aspects of the project convened by the SDM. **However, this may speed the process but can be counterproductive to continuous consultations, transparency, and real-time course correction in the project where needed.** Unlike the previous provisions, projects up to 5 MW will preferably be allotted to bonafide residents of Himachal Pradesh which contributes to generation of revenue and increased employment opportunities within the state.*

- Activities is to be maintained in the form of LADF administered by Local Area Development Committee (LADC) comprising- of various stakeholders including government, project developers, public representatives/nominated members from Project Affected Areas.
- Activities to be covered under LADF: Panchayat level schemes like cement concrete internal paths, ropeways, streetlights, sanitation, rainwater harvesting; block level schools, link road, primary health centre; district level bus stand, hospital, college, training institute
- Activities not covered under LADF: *dirt tracks* or roads, light vehicles, renovations, individual grants.
- The guidelines provide details on identification of affected areas and people³⁶. The declaration of PAF, PAA, PAZ to be completed prior to signing of the Implementation Agreement.
- There are timelines, guidelines, and responsibilities for monitoring of LADF including preparation of Utilization Certificates and Completion Certificates to be provided by LADC.

³⁵Supersede the guidelines notified earlier vide No. MPP-F(10)-15/2006 dated 16-09-2009. The implementation of this policy and continuous feedback from Project Developers on LADF management have brought up the need to revisit these guidelines to administer the LADF and to manage the activities of LADC in an objective, transparent and efficient manner, to increase local participation and create a stake of the community in the expeditious harnessing of the power potential.

³⁶Project Affected People: family whose land or house or other property or source of livelihood has been partly or fully acquired for the development of project; Project Affected Areas: area where actual project components including submergence area, muck dumping area, mine, quarry, infrastructure including roads, project dedicated township, offices, construction activities, welfare facilities and any other facilities directly related to project implementation are located; and Project Affected Zones: area surrounding such project affected area where impact of the project on the lives of people is considerable despite no direct activity is taking place. This varies as per the size of the project (5MW; 5-100 MW and above 100 MW)

- **Corporate Social Responsibility:** HPPCL aims to minimize involuntary resettlement and other losses to the communities. HPPCL philosophy and principles is based on building partnership with communities by recognising them as a stake holder in the projects. HPPCL will make conscious efforts to enhance the quality of life through its CSR programmes. The new Companies Act, 2013 has been implemented/enforced w.e.f 1st April, 2014³⁷. With community engagement (CSO, CBOs and local governance institutions), CSR activities include Eradication of hunger and poverty; Health Care; Education; Environment sustainability, Protection of National Heritage & Culture; and Infrastructural Development and Community Development. As and when the provisions of CSR Policy will be applicable, HPPCL will spend 2% of the average net profits of the 3 preceding years towards CSR.
- d. **Stakeholder/Citizen Engagement Mapping and Profiling:** The hydro power projects in HP, whether taken up by public entities or private developers, have three primary and direct stakeholders. These are (a) the government - specifically the hydro power development department, (b) the project developers and (c) the people affected through acquisition of lands/houses or directly affected by the project economically/socially. The other stakeholders that are relevant, important and have influence over the projects, are the families indirectly affected by project activities, the local communities, the elected representatives/PRI, the civil society organizations, the media, and the government officials involved directly or indirectly in project execution and monitoring. **The juxtaposition of interests, concerns, attitudes, and dispositions of the three primary stakeholders – the government, the project developers, the PAF and the resulting relationships have a major bearing on stakeholder engagement and interaction.**
- **Communication Strategy:** For smooth execution of project activities, effective communication with stakeholders is an important tool. HPPCL regularly communicate with local inhabitants/ community to familiarise them and build awareness about project activities using different platforms, such as: Training and Awareness Camp; Involving Community Based Organizations; Sports event for men and women; Competition for school students; Self Employment Scheme; Public Information Centre (PIC); Exposure visit to on-going construction activities. HPPCL has dedicated RR staff in all the projects as well as at Corporate Level who work closely with communities and building mutual trust and confidence. They are responsible for implementing aforesaid activities, RR Plan and all the social safeguard measures to comply with the policies of funding agencies. Further, most effective options to involve local communities in the project activities and getting feedback directly from them is by engaging people in activities related to project sensitization. Therefore, HPPCL has appointed the co-ordinators from the project area who are the effective means of two-way communication between HPPCL and stakeholders. Moreover, in the projects situated in tribal areas (Distt. Kinnaur), HPPCL has recruited the RR staff from the Project affected families/project affected area who work in close liaison with the stakeholders (See Annex 5 for further details)

³⁷ The provisions of the Act in relation to Corporate Social Responsibility (CSR) have been made mandatory to be complied with by the specified companies. As per Section 135 of the Companies Act, 2013 and Rules made thereunder, specified Companies need to constitute a CSR committee of the Board consisting of three or more Directors, out of which at least one director shall be an independent Director and spend in every financial year, 2% of the average net profits of the Company made during the three immediately preceding financial years, in pursuance of its CSR Policy. Specified Companies are those having net worth of Rs. Five hundred crore (Rs. 500 crore) or more or turnover of Rs. One Thousand Crore (Rs. 1000 crore) or more or a net profit of Rs. Five Crore (Rs. 5 crore) or more. As per requirement of the new Companies Act, 2013, HPPCL Policy of Corporate Social Responsibility (CSR) has been formulated

'Communication Needs Assessment Study' of Himachal Pradesh (HP) hydro power development was conducted during May-July 2012 reflected that PAF families generally don't trust project developers and believe the project developers are only interested in profits, time lines, obtaining NOCs as quickly as possible and minimizing the costs; promises are made only to obtain clearances & NOCs and the project authorities do not intend to fulfil them; projects will impose heavy and unforeseen socio ecological costs and these costs of interfering with ecology are not adequately factored in the projects. The non-project affected population and local NGOs are a very diverse group of stakeholders with diverse opinions, angsts, and negative bias while for public there is a 'rational disinterest'. The media is supportive but stories of PAF sentiments are promoted for increasing viewership. The overall communication strategy is archaic, and role of PICs is not effective enough creating gaps, misinformation, and mistrust. In the absence of websites not updated regularly, people feel the need to visit the head office of HPPCL. The study also gave key recommendations and roadmap for an effective communication and stakeholder

- **Engagement:** HPPCL considers public participation as an integral part of social and environmental assessment process of the project. It is used as a tool to inform and educate stakeholders about the project.
 - Consultation is undertaken with a range of stakeholders including people of affected area, members of the affected households, officials of the district administration, other Government Departments, and elected members of the local Panchayats.
 - Different techniques of consultation with stakeholders are used viz. public meetings, group discussions, personal interaction etc.
 - The RR Staff posted at Project Office disseminate information and request villagers to attend the public consultation meetings. To encourage the participation of local people in the consultation process, the awareness is also spread through co-ordinators, Mahila Mandals etc.
 - Consultations and discussions are started during project preparatory stage for obtaining No Objection Certificates (NOCs) for construction of Project from the concerned Gram Panchayats, NoCs under FRA 2006, Social Impact Assessment, Environment Impact Assessment, Public Hearing etc.
 - Once the project layout is finalized, the process of identification of stakeholders is initiated. HPPCL Land Acquisition Cell prepares complete details of land records (forest land, government land and private land) required for the project. The identification of project affected persons/families (primary stakeholders) is done through revenue record, *Panchayat parivar registers* etc.
 - Both, formal and informal³⁸ consultations are conducted with PAFs. Consultation with the stakeholders is not only held during preparatory stage, but also continues during construction of the project.
 - Project level RR staff maintains direct contact with stakeholders and keeps them aware about the project and welfare activities being carried out by the organisation.
 - Public consultation & Public Hearing are organized while carrying out Social Impact Assessment and Environment Impact Assessment respectively.
 - The compliance/monitoring report with respect of the commitments made to the PAFs during Public Hearing is also submitted to MoEFCC along with the report on conditions included for Environment & Forest Clearance.

e. Grievance redressal mechanism

- HPPCL has designated RR staff for every project. The staff is responsible for evolving and maintaining mutually beneficial, harmonious, and sustainable relationship with PAFs. RR Staff

³⁸ For example, in Kinnaur Distt HPPCL is implementing two projects viz Kashang and Shongtong-Karchham HEP. In the initial stage, to convince the affected families about the project and to disseminate the information about R&R benefits, the R&R staff visited the affected families regularly, some of the meetings were not recorded or documented and were rather informal in nature.

is the focal point for receiving community inputs for focusing the ongoing R&R measures, improving implementation procedures, obtaining response or grievance of communities.

- To receive and facilitate the concerns and grievances of affected families about physical and economic displacement and other project impacts, HPPCL has established a Public Information Centres (PICs) in projects at accessible places³⁹, where PAFs can easily register their complain/grievance.
- In addition, HPPCL has established a Grievance Redressal mechanism by constituting the Grievance Redress Committee (GRC) in every project. Apart from the representative of Project Proponent, representatives of District Administration, Project Affected Families and representative of Project Affected Panchayat are members of GRC. The grievances are first addressed at the PIC by the Resettlement Staff/HoP and unresolved issues are placed before GRC. The project team shared that so far, no serious Grievance has been brought to the GRC. There are no pending grievances - all the Grievances have been resolved at project level or otherwise at corporate level
- Over and above this mechanism there is a portal of Hon'ble CM of State in the name of "Mukhya Mantri Sewa Sankalp" which can be accessed by any individual for any complaint. This portal has different levels of authorities and timelines for redressal of grievances and its working is monitored by CM office.
- For improved job satisfaction, efficiency, and healthy work environment, HPPCL has a GRM for all, staff barring those deemed to be employed under Factories Act, 1948
 - The complainant can either approach the Supervisor⁴⁰ or write a complaint to HR or raise the complaint during the Grievance Day held every quarter.
 - Types of complaints covered under the system are implementation of policies, leaves, increment, benefits or any other.
 - Types of complaints not covered under the GRM system: annual performance, promotion, confidential reports, discharge or dismissal, disciplinary action, grievance not related to the complainant
 - Stages for complaint management begins with the supervisor/unit to resolve complaint in 7 days of filling; if employee is not satisfied, then he/she fill Form-I, if still the problem is unresolved⁴¹, then reach to the Managing Director
 - All grievances duly recorded, and register maintained by the Personnel Department

f. Social Inclusion

- There are specific R&R Benefits for PAF's belonging to ST & SC⁴². In case the families loose access to forest due to the project a special plan will be formulated for development of alternate fuel, fodder and non-timber forest produce. Each PAF of ST followed by SC categories shall be given preference in allotment of land, if any land is available. Each ST family will receive an addition one-time financial assistance of 500 days minimum wages for labour for loss of customary right's or usage of forest produce. ST. PAF's will be resettled as far as possible in the same scheduled area in a block so that they can retain their ethnic, linguistic and cultural identity. The resettlement area prominently inhabited by ST's shall get 1000 Sqm. Land free of cost for community and religious gatherings. The ST's families resettled out of the district will get 25% higher resettlement grant

³⁹ Public Information Centre (PIC) which are set up at a central location of PAA. The PICs remained opened twice/thrice a week and R&R officers were operating the PICs and disseminating the information about R&R benefits. PAFs also approach the PICs for redressal of their grievances.

⁴⁰ Executives reporting to the Managing Director can approach directly for grievances. Executives below them to approach respective Directors for any complaints. Employee may reach out to any other employee for resolution of grievance.

⁴¹ In case of women employee, the Sr. Executive Woman Officer to be associated to hear and solve the complaint. In case of PwD employee, special form is made available by HPPCL.

⁴² HPPCL: Standard R&R Plan of all projects of HPPCL as revised following GoHP Notification up to 2nd April 2012.

- Under CSR, HPPCL plans to make contribution to the Prime Minister’s National Relief Fund /Chief Minister’s Relief Fund, or any other fund set up by the Central Government for socio economic development and relief and welfare of the Schedule Castes, the Scheduled Tribes, others backward classes, minorities & women
- In addition to personal interaction, HPPCL prefers the public platform for consultation with stakeholders where equal opportunity is given to all the sections of PAFs/society including women, poor, and differently abled, SC/ST / OBC helps in building partnership among PAFs. Therefore, HPPCL’s RR Officer/officials regularly attend the meetings of Gram Sabhas of the affected panchayats where demands of all the people are recorded and effort is made to address the concerns of PAFs.
- As per RR Plan, HPPCL provides annuity to disabled, destitute, orphans, widows, unmarried girls (with no financial support), abandoned women, or poor persons above fifty years of age (who are unsupported). HPPCL can provide employment to the vulnerable PAFs subject to availability of post and fulfilling of qualification criteria. Due to non-compliance of any of the criteria it is not possible for HPPCL to provide employment thus HPPCL is providing annuity policy for Rs. 1000/- per month for 10 years after declaration of vulnerable PAFs by concerned Deputy Commissioner. In special circumstances any family losing its source of livelihood completely and not in a position to take up employment in the Project is given one time grant equivalent to 1000 days wages. ST families are given one-time financial assistance of 500 days minimum wages for labour for loss of customary rights or usage of forest produce. Special provisions for differently abled students have also been kept under School Competition Scheme. Among the Community Based Organizations, Mahila Mandals (women groups) are also provided with financial support for income generating activities.
- As far as Equal Opportunity Policy for Women and other marginalized groups (ST/SC, OBC), HPPCL follows Guidelines / Instructions of State of Himachal Pradesh. Further, as regards equal opportunity Policy for Person with Disability, HPPCL has notified the same under Rights of Persons with Disabilities Act. There is also a separate grievance register maintained by HPPCL to record grievances of the persons with disabilities.
- The figure shows that HPPCL has recruited staff from different vulnerable groups including economically weaker classes, ex-servicemen, sportsperson, children of freedom fighters.

Reservation Matrix For Direct Recruitment

Sr. No	Category	Vertical Reservation (Marginalised Groups)	%age	Horizontal Reservation (Marginalised Groups)	%age
1	Executive	I) SCHEDULED CASTES	15%	I) Ex-Servicemen	15%
		II) SCHEDULED TRIBES	7.50%	II) Children/Grand Children of Freedom Fighter	2%
		III) OTHER BACKWARD CLASSES	12%	III) PWDs	4%
		IV) ECONOMICALLY BACKWARD CLASSES	10%	IV) Distinguished Sportsperson	3%
2	Supervisory & Workmen	I) SCHEDULED CASTES	22%	I) Ex-Servicemen	15%
		II) SCHEDULED TRIBES	5%	II) Children/Grand Children of Freedom Fighter	2%
		III) OTHER BACKWARD CLASSES	18%	III) PWDs	4%
		IV) ECONOMICALLY BACKWARD CLASSES	10%	IV) Distinguished Sportsperson	3%
				V) Antodaya/BPL	7%

Reservation Matrix For Promotion

Sr. No	Category	Marginalised Groups	%age		
1	Executive, Supervisory & Workmen	I) SCHEDULED CASTES	15%		
		II) SCHEDULED TRIBES	7.50%		

Figure 12: Staff of HPPCL as per different categories of vulnerability

g. Gender:

- Out of 536 employees, 74 are women (14%), all of whom are permanent employees.
- Women comprise 4% of the staff in technical roles and 10% of the staff in non-technical roles.

- As per Policy Statement for Manpower Recruitment, Direct Recruitment Procedure Manual, Recruitment and Promotion Rules (Promotion of Executives, Promotion of Supervisors and Promotion of Workmen) of HPPCL) Reservation Policy / instruction as applicable in the State of Himachal Pradesh have been adopted by HPPCL.
- As far as HPPCL is concerned, HPPCL till date follows State Government Policies beside compliance to Central Statutes viz Maternity Benefit Act, POSH Act, etc. Further, HPPCL adopts a zero tolerance towards any misdemeanour, ensures safety and wellbeing of women in late hours and equal treatment of all employees
- In compliance with the POSH Act, HPPCL has duly constituted a Complaint Committees for every Project for considering complaints of sexual harassment of women working in HPPCL. The composition of the Complaints Committee is regularly revised after transfer etc. of the existing Chairperson/Member. The Internal Complaints Committee's major functions entail: implementation of the policies relating to the prevention of sexual harassment, strive to resolve complaints by the aggrieved complainant, and recommend actions to be taken by the employer. The meetings of the ICC are held as and when required. To spread awareness, the posters displaying the penal consequences of sexual harassments; the order regarding Internal complaint committee; declare the names and contact details of all members of the IC etc. HPPCL organizes workshops and awareness programmes at regular intervals for sensitizing employees on the issues and implications of workplace sexual harassment and also organizes orientation programmes for members of the IC. HPPCL has also incorporated the provisions of ibid Act in Service Rules under Rule 12B.
- Initial findings from an independent Gender Study undertaken during the preparation of ESSA:

Table 7

Strengths	Weaknesses/Gap	Opportunities
<ul style="list-style-type: none"> • All central and state government policies applicable to government employees • ICC, training plan, CSR program to be implemented soon with focus on wider societal benefits (inc. assistance to women/SHGs where possible), apprenticeship program • Safe office drops services for women staff working after office hours, informal case to case office adjustments for pregnant staff, office breaks for nursing mothers 	<p>Lack of support, facilities, and motivation for women staff to take transfers to non-family duty stations</p>	<p>Focus on some physical facilities like CCTV, office vehicle with dedicated pick and drop routes, re-establish complaint box in the new office; Explore networks and linkages for working with women SHGs/micro enterprises and women centric organizations directly in the workings of the utility as a part of its CSR mandate. This can be tracked through indicators like: No. of women friendly provisions introduced in the organization; No. of WSHGs or Women entrepreneurs supported under CSR</p>

- h. **Labour Management:** HPPCL is a state government undertaking formed under Companies Act, 1956 [revised in 2013]. All the laws in force within the jurisdiction of the Himachal Pradesh or India are applicable to HPPCL. The relevant laws themselves delineate the extent of their coverage and applicability and the penalty for any laxity, thereby enforcing them automatically. No separate orders/instructions are required to be issued with respect to applicability of laws. This can be understood from the fact that various projects under HPPCL have obtained Certificate of

Registration under relevant section of Contract Labour (Regulation and Abolition) Act, 1970. Also, the employees of HPPCL are covered under the Employees' Provident Funds & Miscellaneous Provisions Act, 1952. HPPCL has further ensured that the labour on the role of contractor/ sub-contractor is also covered under the ibid act to ensure their social security. Similarly, other related acts like maternity benefit 1961, Workmen compensation Act 1923, Employees' State Insurance Act, 1948 etc. are also applicable in HPPCL. [may refer Annexure-I in respect of Shongtong-Karchham HEP, Renukaji Dam Project, Design office Sundernagar, Thana Plaun HEP and Sainj HEP]. Another example is in respect of Sawra Kuddu HEP where Consent to operate u/s 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and u/s 21 of Air (Prevention & Control of Pollution) Act., 1981 has been granted.

- HPPCL also issues general instructions, time to time, to all its privately engaged Company Contractors and Outsource Contractor to abide by these laws, to keep the labour unrest at bay. Regular meetings are held with the representatives of labour unions on Project site to address the issues related to working hours and other facilities as per the laws.
- In case of direct workers, the HPPCL is responsible for redressal of worker related grievances following the State Government, Government of India Rules and Regulations and provisions. HPPCL has formulated a Grievance Redressal Procedure. The details of accidents are duly maintained. Wherever applicable the compensation is provided under the Workmen Compensation Act, 1923. Furthermore, the State Government has setup a dedicated Labour Department that monitors and ensures proper implementation and redressal of grievances as per provisions contained in various labour laws from time to time.
- In case of Contract labour & outsourced services, HPPCL ensures proper compliance with the provisions of Contract Labour (Regulation & Abolition) Act, 1970 while dealing the matter of outsourcing of services. HPPCL has centralized Personnel & Administration (P&A) wing as well as Relief & Rehabilitation (R&R) wing at Head Office and dedicated personnel in both categories are deployed at every Project to resolve conflicts between migrants & locals
- HPPCL adheres strictly to the provision of Hydro Policy, 2006 (Chapter-V) of HP Government and employ at least 70% of its total manpower from amongst bonafide Himachalis, both on direct roll of Company as well as on the roll of contractor/sub-contractor. Out of the 537 employees on direct roll as on January, 2022, 95.90 percent are Himachalis, across 10 projects/ offices under HPPCL. However, information of workers employed by the contractors is not available to assess the status of employment.
- Other benefits includes employment in the project construction activities to affected people; Small contracts upto Rs 5 lakh given to local people on preferential basis; Engagement of vehicles from local population; Outsourcing of services through local contractors; Skill Upgradation of PAFs by providing vocational training to them; Merit & Support Scholarship to the wards of PAFs. Examples: In Renuka Dam Project 183 candidates have been trained by HPPCL through various Industrial Training Institutes with an expenditure of Rs. 71.70 lakh, in Shongtong Karchham HEP Merit Scholarship has been provided to 535 students by incurring an expenditure of Rs. 49.00 lakh, in Sawra Kuddu HEP 325 petty contracts amounting to Rs. 15.23 crore has been awarded to 85 contractors belonging to project affected families. WIn Integrated Kashang HEP 25 vehicle has been hired from PAFs and expenditure of an amount of Rs. 1.83 crore has been incurred on the same. W
(See Annex 6 for further details)

- i. **Capacity Strengthening and Training:** HPPCL recognizes the role of training programme, seminar, convention, workshop, symposium, presentation, higher education, training/ certificate courses or any other structured learning or developmental programme, based on organizational needs and/or Training Need Identification process. These courses are not only restricted to environment staff but extended to all project engineers and contractor staff. It aims to tune the officials and contractors to become compliant to environmental imperatives e.g. construction of STP or putting air quality sensors inside the tunnels. The **training policy also aims** at: skill upgradation; creating specialist; motivate employees; improve management and team spirit; and Develop individuals for higher responsibilities within the organization and to increase their level of consciousness, sensitivity and environmental safety. The figure below maps the facets of HPPCL’s training portfolio:

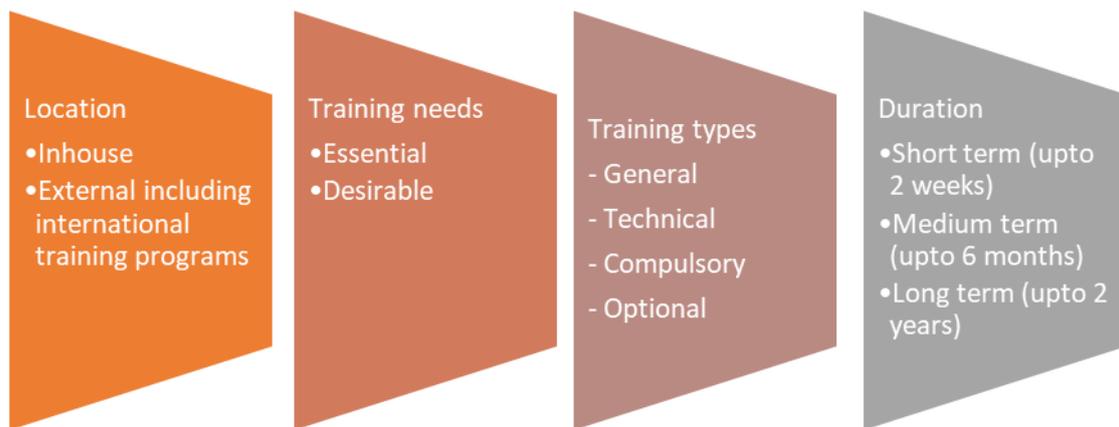


Figure 13: Facets of training portfolio at HPPCL

- Some of the expert centres include: Himachal Pradesh Institute of Public Administration; Hydel Training Institute of SJVNL; Line Man Training Centre Institute of HPSEB; Administration Staff College of India; IIMS; Engineering Staff College of India; National Power Training Institute Faridabad; PMRI Noida, belonging to NTPC; PSTI, Bangalore; IIT’s; ADB; ASCI Hyderabad etc. Under the Capacity Building Programme, HPPCL regularly organize/nominate officers /officials working in Environment & R&R Cell for training to enhance the knowledge on social/environmental safeguard policies, best practices & operational guidelines, globally practiced and they constantly update their knowledge and skills by having interactions with agencies engaged in execution of similar projects
- Capacity development programmes in respect of social and environmental safeguards include but not limited to the following: Capacity building programmes (Environmental & Social) for Executing Agencies; Climate Change and Disaster Management; Clean Development Mechanism (CDM); Corporate Social Responsibility; Land Acquisition-Addressing implementation issues in Social Assessment & Recognition of Forest Rights; ADB Safeguard procedures; Advance Environment Safeguards; Advance Social Safeguard procedure; Orientation on Social & Environment safeguard procedures; Awareness workshop on RFTLAR&R Act, 2013; Workshop for preparation of detailed project report for rejuvenation of Indus River basin through forestry; Effect on water security. HPPCL also train and engage with villagers affected by the project to create awareness about the utility and essentiality of hydropower projects and the true extent of their side effects both positive and negative on the surroundings and their livelihoods.

2.2.3.2 Program Activities and associated Social and Environment Impacts

	Activities	Social Implications	Environment Implications
	<p>Bundling of hydro Power with renewable power and implementation of the mechanism</p> <p>Preparation of DPRs and financing plans for Renukaji and Thana Plaun Pump storage projects, etc</p>	<p>DPRs to be reviewed for social risks and impacts.</p>	<p>Underground excavation, blasting of rocks and movement of vehicles during haulage of excavated rock material and muck disposal, during construction of long tunnels for run-of-the-river projects, causes localized air (mainly SO_x, NO_x and CO₂) and noise pollution. Pollution is caused by oil and silt flow from these tunnels.</p> <p>Pollution is generated from residential colonies of workers and staff.</p> <p>Pondage and withdrawal of water in the tunnels changes the hydrology, limnology and flow regime of streams in the downstream. There could also be loss of flow in downstream during dry season. Aquatic life could be affected due to variations in natural flow of rivers and streams.</p>
	<p>Strengthening governance capacities of power utility (training, GRM system, procurement manuals, transition to SAP platforms, office automation, web-based system for real time monitoring)</p> <p>Setting up independent single trading desk and operationalize it.</p>	<ul style="list-style-type: none"> • Strengthening capacity of staff following the need assessment with special focus on women to develop and implement a structured training plan. • Review of existing E&S norms and system, gap analysis and upgradation. 	

2.2.3.3 Assessment Against Core Principles

Core Principle #1: Program E&S management systems are designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects.		
Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
<ul style="list-style-type: none"> The legal framework at national and state level is robust and the utilities take cognizance of it in its systems and practices. HPPCL has an E&S policy and provisions as well as reporting and tracking mechanisms. During project preparatory gram sabhas, public consultations, public hearing etc are organized. Further, RR staff maintains direct contact with PAFs and keep them aware about the project and welfare activities being carried out by the organization HPPCL has appointed the co-ordinators from the project area who are the effective mean of two-way communication between HPPCL and local people. Another mean being used by HPPCL to get familiar with the mindset of local people is the involvement of Community Based Organizations (Mahila Mandal, Yuvak Mandal) in the sensitization work HPPCL has established a Grievance Redressal mechanism by constituting the Grievance Redressal Committee (GRC) in every project. Apart from the representative of Project Proponent, representatives of District Administration, Project Affected Families and Project Affected Panchayat are the members of GRC. 	<ul style="list-style-type: none"> The funds allocated for LADF remains grossly under utilised, resulting in gaps in mitigating the adverse impacts There is no structured mechanism for monitoring and evaluating the cumulative social impacts on the community and the measures taken to compensate and resettle and rehabilitate the affected 	<ul style="list-style-type: none"> The R&R policy needs to be updated to align with the RFCTLAR&R Act 2013. Unlocking the LADF with improved institutional mechanism for disbursement of the entitlements.
Strengths	Weakness/Gaps	Opportunities/Recommendations
ENVIRONMENTAL MANAGEMENT		
<ul style="list-style-type: none"> Present legislative framework contained in the umbrella EPA, 1986; the Water Act, 1974; the Water Cess Act, 1977; and the Air Act, 1981. The legal framework in respect of management of forest and biodiversity is contained in the Indian Forest Act, 1927; the FCA, 1980; the Wild Life (Protection) Act, 1972; and the Biodiversity Act, 	<ul style="list-style-type: none"> Environmental systems are project and regulatory requirement specific. These projects' specific efforts need an integrated system to address environmental and other climate risks and be duly documented, approved within their competent approving authorities for regular implementation. 	<ul style="list-style-type: none"> There is an opportunity to develop ESPP that aligns with national and state laws and global standards for management of E&S risks. Developing an program E&S manual providing step-by-step instructions on how to develop and implement a management

<p>2002.Existing regulatory framework have well laid down screening and scoping mechanisms, has been adopted by HPPCL.</p> <ul style="list-style-type: none"> • HPPCL follows rules spelled out in the EPA 1986, EIA Notification 2006 and Hydro Power Policy, 2006 for identification of measures to mitigate environmental impacts and make financial provisions for the same. To mitigate the adverse environmental & social impacts, EMP & SMP are prepared through qualified and experienced agency considering all national laws and regulations. • Policy outlines plans viz., Greenbelt Development Plan; Wildlife Management, Development and Biodiversity Conservation Plan; Muck Management Plan; Restoration Plan for Quarry-sites; Landscape Restoration Plans. • HPPCL sites its projects in a way that minimizes impact on eco-sensitive zones, wildlife sanctuaries, national parks by identifying resources with “Incomparable Value”. Preference given to the run of the river (RoR) projects • HPPCL has moved away from the conventional method of assessing impacts on a project-by-project basis to a river basin approach. The state conducted CEIAs in three out of 5 river basins. Rest two is under finalization. Moreover, comprehensive Catchment Area Treatment Plans are in place • HPPCL have clear institutional responsibilities and resources to support implementation of environmental management plans. ESMU/HPPCL in place for documentation and preparation of EIA, ESMP in coordination with consultants. Dedicated and trained E&S staffs are present in HPPCL. ESMU must ensure to bring on board different experts like air, hydrology, biodiversity, etc. • Each project of HPPCL has separate EIA & EMP Report. EIA Report incorporate the impact on hydrological regime, downstream flows, territorial and aquatic biodiversity including primary survey for migratory fishes, soil erosion and sediment movement, catchment area treatment, vulnerability risk assessments from landslides etc. To address the above 	<p>Further there should be no exemption depending on mandatory regulatory or funding requirements.</p> <ul style="list-style-type: none"> • The existing system of post project monitoring need further strengthening. This process involves other Departments & Third Party thus information flow on gaps, action taken and inter-departmental co-ordination need system specific approach. • Though required environmental skill are in place but ESMU need guidance on bio-diversity management. • The state has taken all positive strides and developed CIA reports for 5 river basins, however, with bundle operation these may require a relook not only on cumulative environmental and social impacts but also on biodiversity, aquatic, downstream usage of water and benefit sharing mechanisms than those already in practice. The state thus has to revisit existing CEIAs, CAT Plans, vulnerability analysis of terrain from disaster management and other notifications and procedures on e-flows, crop damage and local area development fund so that hydro power development and operation and maintenance be environmentally and socially sustainable. 	<p>system addressing common environmental, occupational health and safety (OHS), labor, and community risks and impacts that such projects are likely to face should be prepared.</p> <ul style="list-style-type: none"> • Adopt web-based Monitoring and Evaluation (M&E) systems to monitor E&S risk management for evidence-based reporting • HPPCL is equipped with systems and skills to identify, address and monitor environment issues. These will be further strengthened with basin level environmental monitoring integrated at the level of Department of Energy and enhancing sustainability framework Based on existing gap analysis of cumulative environmental and social assessments , program will support technical , environmental and social sustainability protocols to bench mark existing , operational and pipeline projects during course of the project. • A comprehensive gap analysis of existing cumulative environmental and social assessments is required to develop a road map for comprehensive strategic document for basin wide environmental and social sustainability in future including reformist actions on policies and institutions, if needed. This is recommended to take up Comprehensive Cumulative Environmental and Social Study for benchmarking basin wide E&S protocols and benchmarking projects from environmental, social and technical sustainable parameters based on suggestions provided in gap analysis study.
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<p>mentioned impacts proper mitigation measures have been provisioned under the EMP document</p> <ul style="list-style-type: none"> • Ensures complete transparency with different stakeholders. Compliance reports are filed on regular basis to different authorities. • Well defines public disclosure and public consultation as well as dissemination of relevant information at different stages of project is ensured • An Administrator (officer not below the rank of JC or AC or DC or equivalent official of Revenue Department), responsible for R&R Plan at the State Level and a Commissioner (an officer of the rank of Commissioner or Secretary of that Government) are appointed by the State Government for implementation of R&R measures. • A Grievance Redressal mechanism is developed in accordance with the ESMF, which includes procedure for recording/documenting key information, and evaluating and responding to the complaints, as per time frame stipulated in GRM. All concerns received/raised through the GRM are to be addressed earnestly, transparently and in a time bound manner, without retribution to the grieved/ affected person(s). 		<ul style="list-style-type: none"> • Capacity Development of E&S risk management – (a) Develop HR (Human Resources) policy for appointment of dedicated key E&S experts in HPPCL as staff including need based hiring of contractual specialized skills on bio-diversity, aquatic ecology and dam safety, (b) training need assessment, prepare training calendar including target group and its implementation and develop the ICT (Information and Communication Technology) tool for monitoring and creating the data base of trained personnel.
<p>Core Principle #2: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing</p>		
<p>Strengths</p>	<p>Weakness/Gaps</p>	<p>Opportunities/Recommendations</p>
<p style="text-align: center;">ENVIRONMENTAL MANAGEMENT</p>		
<ul style="list-style-type: none"> • HPPCL sites its projects in such a way that minimizes impact on eco-sensitive zones by identifying resources with “Incomparable Value”. • Eco friendly communication means like ropeways are adopted to replace the modes involving tree cutting like roads as HPPCL avoids ecologically sensitive areas, eco-sensitive zones, dense forest, Wildlife Sanctuaries and National Parks as far as possible. • In case traversing forestland is unavoidable, clearance from the forest authorities is obtained under the Forest (Conservation) Act, 1980 and under all other relevant laws and regulations relating thereto. 	<ul style="list-style-type: none"> • Inclusion of data on natural habitats and cultural heritage in the post project monitoring system is unclear, integrating such data will further strengthen the smooth functioning of the projects in compliance with this core principles. • Integration of an all-encompassing monitoring and evaluation system for an effortless execution of projects is lacking. 	<ul style="list-style-type: none"> • ESPP and E&S manual to promote E&S sustainability, even for projects those are beyond regulatory clearances are required to adopt uniform system across all planned activities to ;(a) design and screen the activities to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources;(b) avoid, minimize, or mitigate adverse impacts; (c) promote informed decision-making relating to Program’s E&S effects; and (d)

<ul style="list-style-type: none"> For finalizing site, all possible efforts are made to avoid forest area or to keep it to the barest minimum. If unavoidable due to the geography of the terrain or heavy cost involved, different alternative options are considered to minimize the requirement of forest area Biodiversity Conservation, Management Plan, CAT Plan, Fishery Conservation Plan and Green belt development Plan etc is an integral part of EMP. The double check approach (1st from State Environment Authority for 25-50 MW projects or MoEF&CC for >50 MW projects, and then seeking 'Consent to Establish' and 'Consent to Operate' from State Pollution Control Board ensures no significant conversion or degradation of critical natural habitats. HPPCL is committed to protect the archaeological sites, as evident by the construction of protection walls at Sawra-Kuddu HEP, to protect the two archaeological sites. Even in the future if any protection measures shall require to protect the archaeological sites HPPCL intends to provide the same 		<p>implementing evidence based evaluation and monitoring arrangements.</p> <ul style="list-style-type: none"> Effective Environmental Monitoring systems to be set up backed up with a dashboard for integrated monitoring. In ESPP detailed procedure for monitoring and evaluation need to be incorporated including frequency of monitoring, information of non-compliances and best practices, inter-agency co-ordination with monitoring agencies and closure of non-compliances.
<p>Core Principle #3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.</p>		
Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
<ul style="list-style-type: none"> Adequate legal provisions in the national and state laws which are a part of the bid documents for all projects Monthly reports submitted from each of the projects includes key performance indicators on labour management 	<ul style="list-style-type: none"> As per the EMP, the following facilities are provides: Provision of Fuel; Solid Waste Management; dispensary had been opened at project site with one Doctor, one Pharmacist and medical aids; HPPCL has also introduced a project level medical fund scheme to cater the demand of the local inhabitants as the project is located at remote area with limited or no access to medical facilities; Provision for Electricity; Sewage Treatment Plant; Potable water collection and storage (bore wells, upstream river) 	<p>Under the P4R, HPPTCL can pilot and roll out labour law compliance tools which provide systematic, simple, and real time tracking by the contractors and Utilities. The P4R also provides an opportunity to streamline Labour Management Procedures, Labour Management Plans and Labour Influx Management to ensure safety of individual, direct, indirect, contracted, sub-contracted and community labour as well as management of risks in case of labour influx and impact on host communities.</p>
Strengths	Weakness/Gaps	Opportunities/Recommendations
ENVIRONMENTAL MANAGEMENT		

<ul style="list-style-type: none"> • HPPCL possesses the system and capacity to implement the environmental safety guidelines laid in their Hydro Policies. Operation manuals, safety manuals and Disaster Management Plans are in place for every project place to avoid, minimize or mitigate community, individual and worker risks, • As a part of HPPCL's procedures and practices, public and worker safety are an integral part. There will be provisions for public and worker safety as part of the bid/ contract documents. HPPCL's Plan and policy is included the following: <ul style="list-style-type: none"> (i) Protective footwear and protective goggles to all workers (ii) Protective goggles and clothing to workers engaged in stone breaking activities, welding activities etc. (iii) Earplugs to workers exposed to loud noise, crushing, compaction, or concrete etc. (iv) Helmets & Boots for workers working underground and in open excavation areas. • At HPPCL, explosives for blasting of rocks are stored and used according to the Guidelines for Storage and Handling of Hazardous Materials. • Used transformer oil is categorized as hazardous according to the Hazardous Waste (Management and Handling) Rules 2003. HPPCL involves experts and licensed/registered agency in disposal of used gas, oil and other input materials in an environmentally compatible manner. • Policy at HPPCL ensures the setting up of dispensaries and first-aid equipment under the control of a qualified doctor. • Sensors in underground tunnels are used to ensure safe air for the workers, especially after blasting operations • Residential colonies for workers designed for minimum water and solid waste pollution • Disaster Management Plan (Weir Safety and Maintenance Manual), Emergency Action Plan (EAP), Evacuation Plan and Pandemic Alert are in place to avoid, minimize or mitigate community, individual and worker risks 	<p>Most environmental systems are project specific and based on regulatory or funding requirements. Again, these projects specific or implementation agency specific efforts needs an integrated system to address environmental and other climate risks and be duly documented, approved within their competent approving authorities for regular implementation.</p> <p>An efficient monitoring and evaluation system to ensure compliance to public and health safety measure is unavailable.</p>	<p>Streamline and integrate reporting practices that will guide operational practices and report <i>(a) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials used in renewable energy generation; and (d) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards incorporating recommendations from District Disaster management Plans and other safety issues.(c) emergency response systems and accident and incident reporting</i></p>
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Core Principle #4: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards

SOCIAL MANAGEMENT

Strengths	Weakness/Gaps	Opportunities/Recommendations
<ul style="list-style-type: none"> • Policies are robust (Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 and Himachal Pradesh Rules, 2015. In addition, sectoral policies such as HPPCL's Resettlement and Rehabilitation Policy, 2006 • To protect the interests of the project affected persons during construction stage of energy sector projects. The Tariff Policy, 2006 and Himachal Pradesh Land Area Development Fund enumerates adequate benefit sharing mechanisms for people adversely affected by hydropower projects. 	<p>Tracking and monitoring done as per specific projects and not as per specific social management themes which makes it difficult to understand the cumulative impacts of the institution as a whole</p>	<p>Develop systems for regular and streamlined reporting to track activities and results in a comprehensive manner</p>

Core Principle #5: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (hereafter referred to, interchangeably, as Tribals, Tribal Groups or Tribal Populations), and to the needs or concerns of vulnerable groups

SOCIAL MANAGEMENT

Strengths	Weakness/Gaps	Opportunities/Recommendations
<ul style="list-style-type: none"> • HPPCL has several project and institutional level mechanisms to ensure representation and inclusion of the tribals • Moreover, in the projects situated in tribal areas (Distt. Kinnaur), HPPCL has recruited the RR staff from the Project affected families/project affected area who work in close liaison with the PAFs • HPPCL provides for specific R&R Benefits for PAF's belonging to STs. In case the families loose access to forest due to the project a special plan will be formulated for development of alternate fuel, fodder and non-timber forest produce. Each ST PAF shall be given preference in allotment of land. Each ST family will receive an addition one-time financial assistance of 500 days minimum wages for labour for loss of customary right's or usage of forest produce. ST PAF's will be resettled as far as possible in the same scheduled area in a block so that they can retain their ethnic, linguistic and cultural identity. The 	<ul style="list-style-type: none"> • Reporting on the mitigation measures and the laws safeguarding the rights of the tribals remains adhoc and can be strengthened 	<ul style="list-style-type: none"> • Streamline policies on social inclusion and develop indicators to track • Conduct studies for assessing long term impact and opportunities for improvement

resettlement area prominently inhabited by STs shall get 1000 Sqm. land for community and religious gatherings. ST families resettled out of the district will get 25% higher resettlement grant.		
Core Principle #6: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes (<i>Not Applicable</i>)		

2.2.3 HPSEBL

The Himachal Pradesh State Electricity Board (HPSEB) was constituted on the first day of September 1971 in accordance with the Electricity (Supply) Act, 1948, which has been re-organized as Himachal Pradesh State Electricity Board Ltd. (HPSEBL) w.e.f. 14.06.2010 under Company Act.1956. HPSEBL is the only Distribution Company (DISCOM) in the State of Himachal Pradesh which is responsible for the supply of Uninterrupted, Quality & reliable power to all consumers within the State. Power to end consumers is being supplied through a vast network of Transmission, Sub-Transmission & Distribution lines laid in the State. Beside the Operation & Maintenance (O&M) of Distribution system in the State, HPSEBL is also looking after the O&M of EHV Transmission System & Generating Power Houses (owned by HPSEBL). After trifurcation new Generating stations & Transmission system are created, operated & maintained by Himachal Pradesh Power Corporation Limited (HPPCL) & Himachal Pradesh Power Transmission Corporation Limited (HPPTCL) respectively.

Currently, the yearly consumption of the State is about 10,000 MUs out of which 88% of the requirement is being met from Hydro Power generation. HPSEBL is procuring power from Small Hydro Power Projects up to 25 MW and PPAs have been signed with Solar Power Projects for about 61 MW as mandated by HPERC. Out of these 30 MW capacities of Solar Power Projects and 503 MW capacity of Small Hydro Power Projects below 25 MW have been commissioned and power being procured by HPSEBL. The entire power generated from the projects having capacity up to 25 MW will be mandatorily purchased by HPSEBL at the HPERC determined tariff. The same shall be applicable to the projects which shall be commissioned after 15.05.2018.

2.2.4.1 Institutional structure, procedures, practices, and performance

- a. HPSEBL is in the only DISCOM in the State of Himachal Pradesh responsible for operating and maintaining of distribution system which includes both High Voltage (HV-below 66kV) and Extra High Voltage (EHV-66kV & above). Besides this, 27 generating stations with cumulative capacity of 489.35 MW (SHEP & HEPs) are also being operated & maintained by HPSEBL. HPSEBL is also entrusted with the works of Renovation & Modernization, Upgradation, Operation and Maintenance of existing power houses. Government of Himachal Pradesh has allotted Sai Kothi-I HEP (15 MW), Sai Kothi-II HEP (18 MW), Devi Kothi HEP (16 MW), Hail HEP (18 MW), Raison HEP (18 MW), New Nogli HEP (9 MW), Tikkar HEP (5 MW) & Kutahar HEP (5 MW) to HPSEBL for implementation. GoHP has also accorded in-principal approval to carry out the works of Survey & Investigation (S&I) for preparation of DPRs of Batseri (60 MW) and Khauli-II (5.5 MW) HEPs in favour of HPSEBL.
- b. At present 25,529 posts of various categories are sanctioned in HPSEBL, 18,491 posts are occupied by regular staff, contractual staff, and daily wage employees. Remaining 7038 posts of various categories are lying vacant. The Staff in 232 sub-divisions, field units at GE level and third-party inspections through consultants and HRD department are involved in managing E&S risks.
- c. The Chief Engineer is responsible for the implementation of Environmental Management Plan for all the works under their jurisdiction. HPSEBL has no special designated officer responsible to support Environmental Safeguard measures for the projects. Though the PIU is responsible for the E&S functions, there is no designated Chief Safety Officer. As of now, it is the Executing Officers in the 232 sub-divisions are responsible for addressing environmental and safety concerns within their jurisdiction.

- d. The HPSEBL has prepared an Environmental & Social Impact Assessment (ESIA) & Environmental & Social Management Plan (ESMP) for the works being executed under Green Energy Corridor (GEC)-I Scheme funded by KfW. The duties of the PIU under the said program at site level are to:
- Implement the environment policy guidelines and environmental good practices at the sites.
 - Advise and coordinate the contractor(s) activity towards effective environment management.
 - Liaise with the local officers of forest department, HPPCB and seek help of their officers in resolving environment monitoring related issues, wherever applicable.
 - Carry out environmental and social survey to avoid negative environmental impact.
 - Make the contractor staff aware of environmental and social issues so that EMP could be managed effectively.
 - Prepare periodic environment management and compliance reports
- e. The Project Management Unit (PMU) structure of HPSEBL for GEC-I scheme is as below:

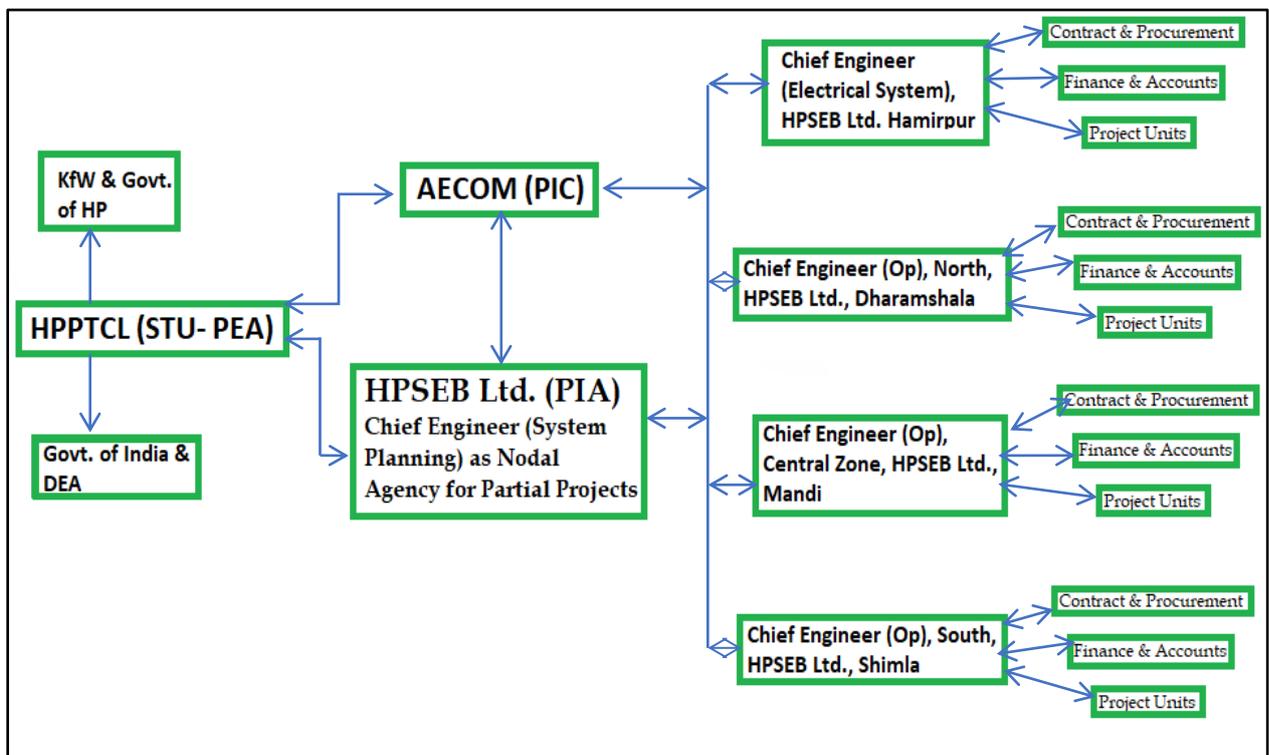


Figure 14: PMU Structure of HPSEBL

The PMU is responsible for processing and implementing all project(s). Projects are monitored by qualified technical staff/experts (e.g. design and technical reports, feasibility studies, environmental and/or social assessments, and associated EMP's and budgets), who also ensure and monitor compliance with kfw and Government safeguard requirements. In addition to this works under GEC-I scheme are also monitored by the Consultants i.e. M/s AECOM & PwC appointed by KfW.

ENVIRONMENTAL MANAGEMENT

- a. **HPSEBL is committed to provide a safe working place environment to its authorized line staff and other stakeholders as an integral part of its business philosophy and values** Regulation 12 of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulation 2010 is followed for defining general safety requirements pertaining to construction, installation, protection, operation and maintenance of electric supply lines and apparatus. Material and strength, Regulation 55 of CEA(measures relating to Safety and Electric Supply) Regulation,2010; Joints, Regulation 56 of CEA (measures relating to Safety and Electric Supply) Regulation,2010; Maximum stresses, factors of safety, Regulation 57 of CEA(measures relating to Safety and Electric Supply) Regulation,2010; Clearance between conductors and trolley wires, Regulation 59 of CEA (measures relating to Safety and Electric Supply) Regulation,2010 are followed for Over-Head EHV/EHT & HT JLT Lines, Underground Cables & Sub Stations CEA Regulations Provision. For the current existing projects, violation/incidents and accidents are recorded & reported to the Senior Executive Engineer (E) PIU, who further notifies it to relevant enforcing authority. All these incidents/violations/ accidents are being formulated as per the guidelines/format of CEA and remedial measure are also shared with the field units by Chief Safety Officer (CSO) i.e. Chief Engineer (P&M) to avoid further accidents.
- b. The Contractor is required to prepare detailed Safety, Health and Environment Management Plans for implementing all the aspects of projects. ESMP should include plan for Environment, Social, health & safety, waste, emergency and debris disposal management plan etc. During location of sub stations HPSEBL ensures that construction facilities are placed at suitable distance from water bodies, natural flow paths, important ecological habitats and residential areas. Route/site selection for the projects are done on walk over surveys, usage of tools such as the forest atlas, revenue papers, survey of India maps of the area. They make all possible efforts to avoid Eco sensitive areas, Forest areas or to keep it to the barest minimum with consultation of all the stakeholders, any concern is addressed by incorporating the same into designs or mitigating the same by keeping the provisions in Environmental Monitoring Plans including budgetary provisions.
- c. In case of Hydro Power Projects, the project developer shall be required to obtain all the statutory/non statutory final clearances from the departments viz. Forest, I&PH, HPPWD, Fisheries, Pollution Control Board, Wildlife, Revenue etc, after paying the prescribed fee fixed by these departments, necessary for the implementation of the Project(s). To avoid, minimize and mitigate adverse impacts on physical cultural property (Places of worship, sacred areas, monuments, etc.) it is partly complied as part of technical reporting and funds are deposited to Local Area Development Committee for the development of the area. There is a need for an Environment and Social Management Unit or Cell for documentation, preparation, implementation and monitoring of EIA and ESMP for Hydro Power Generation Projects. A regulatory framework for obtaining mandatory clearances of hydro generation projects from SEIAA or EAC as per EIA Notification, 2006 as amended till date should be brought into place. There is no formal system to of avoid, minimise or mitigate environmental risks and impacts when regulatory or funding requirements are not there.

HPSEBL developed ESMP for substation project to mitigate any adverse environmental impacts for Sub Station project under multilateral funding agency. This management plan clearly stated risks and impacts at different stages of project development and stated mitigation/management mechanism. The ESMP detailed out responsibility of monitoring key environmental, biological, ecological resources and human environment and institutional responsibility to address related

issues. The ESMP clearly states the mitigation measures to be taken against the potential environmental impacts during the pre-construction, construction and operation and maintenance stage of any project. This is clearly stated that Contractor shall be responsible for carrying out the work at the proposed site in full compliance with this ESMP and applicable National, State, KfW laws and WB regulations governing environmental and social impact management, pollution control, waste management, and occupational health and safety. However, in the event of any disparity between the World Bank Safeguards Policies and Indian acts, the World Bank safeguards policies shall prevail. Depending on the requirement briefed in the scheme/procedure of the funding agency, HPSEBL carries out the Environmental studies or Environmental Impact Assessment to identify and predict the impact of a project on the Soil, Water, Air, Flora, Fauna & Ecosystems etc. along with Land uses, landscape, cultural heritage including impacts on livelihood through environmental media, health and safety, vulnerable groups, and gender issues.

- f. Although minimum/negative impact on the Environmental & social aspects of the area is possible in distribution system, Stakeholder consultations are held during survey and opinion of other department are taken as per the requirement. In case of Transmission lines the FRA/FCA cases has been prepared as per guidelines of Ministry of Environment, Forest and Climate Change (MoEF&CC). A Joint Inspection Committee (including all the Stakeholders) has been formulated which gives its recommendation for the proposed site/location.
- g. For distribution system up to 33kV level preliminary walk surveys has been carried out for the selection of best possible route and due care has been taken to avoid adverse effects on natural habitats and physical cultural resources. To avoid, minimize and mitigate adverse effects on natural habitats and physical & cultural resources resulting from construction of a project (66kV & above), at least three alternatives to the project's location/route are examined and their Potential Environmental impacts predicted and the particular alternative with least impacts is selected; A Joint Inspection Committee (including all the Stakeholders) is formulated which gives its recommendation for the proposed site/location; Carry out meaningful consultation with stakeholders, affected people, NGOs and different Government Departments.
- h. **HPSEBL carries out the Environmental studies or Environmental Impact Assessment** to identify and predict the impact of a project on the Soil, Water, Air, Flora, Fauna & Ecosystems etc. along with Land uses, landscape, cultural heritage including impacts on livelihood. Stakeholder consultations are held during survey and opinion of other department are taken as per the requirement
 - To avoid, minimize and mitigate adverse impacts on physical cultural property (Places of worship, sacred areas, monuments, etc.), funds are deposited to Local Area Development Committee for the development of the area.
 - The Contractor is responsible for carrying out the work at the proposed site in full compliance with this ESMP and applicable National, State, multilateral agency's policies governing environmental and social risk management and occupational health and safety. ESMP should include plan for Environment, Social, health & safety, waste, emergency and debris disposal management plan etc. The project developer obtains all the statutory/non statutory final clearances from the departments viz. Forest, I&PH, HPPWD, Fisheries, Pollution Control Board, Wild Life, Revenue etc, after paying the prescribed fee fixed by these departments, necessary for the implementation of the Project(s).
 - During location of sub stations HPSEBL ensures that construction facilities are placed at suitable distance from water bodies, natural flow paths, important ecological habitats and residential areas.

- For distribution system up to 33kV level preliminary walk surveys has been carried out for the selection of best possible route and due care has been taken to avoid adverse effects on natural habitats and physical cultural resources. Site selection for the projects are done on walk over surveys, usage of tools such as the forest atlas, revenue papers, surveys is done.
 - To avoid, minimize and mitigate adverse effects on natural habitats and physical & cultural resources resulting from construction of a project (66kV & above), at least three alternatives to the project's location/route are examined and their Potential Environmental impacts predicted and the particular alternative with least impacts is selected.
 - In case of Transmission lines, the FRA/FCA cases has been prepared as per guidelines of Ministry of Environment, Forest and Climate Change (MoEF&CC). A Joint Inspection Committee (including all the Stakeholders) has been formulated which gives its recommendation for the proposed site/location.
 - A Joint Inspection Committee (including all the Stakeholders) is formulated which gives its recommendation for the proposed site/location; Carry out meaningful consultation with stakeholders, affected people, NGOs and different Government Departments.
- i. For the current existing projects, violation/incidents and accidents are recorded & reported to the Senior Executive Engineer (E) PIU, who further notifies it to relevant enforcing authority. All these incidents/violations/ accidents are being formulated as per the guidelines/format of CEA and remedial measure are also shared with the field units by Chief Safety Officer (CSO) i.e. Chief Engineer (P&M) to avoid further accidents. **Environmental Monitoring Plans** have budgetary provisions for stakeholder consultations and to incorporate their concerns into designs or mitigating the same. An extensive basin wide strategic cumulative and trans-boundary impact analysis should be undertaken during the course of the project, which should facilitate bringing forth environmental and social sustainability framework for its projects.
- j. **Emergency and Disaster Management Plan:** It aims to prevent accidents through good design, operation, maintenance, and inspection, by which it is possible to reduce the risk of an accident though it is not possible to eliminate. The objective is to create emergency response at local level; eliminate possibilities of emergencies; and to minimize the effects of the accident on people and property from Electric Fire (Electrical Transformer; Transformer Yard and HT/LT Sub-Station; Electrical Cable Trenches, Electrical Shock, Fallen Power Lines, Working at Height, transformer oil spillage etc. The EDMP details the potential risks, action plans and institutional responsibility for all locations for project cycle that includes planning, implementation, and O&M of the works along with budgetary provisions. HPSEBL has a policy in place to provide relief to victims of fatal/ non-fatal accidents (outsourced/private person) vide letter No. HPSEBL (SECTT) IR-384/Relief-Policy to accidental victim (private person)/ 12-27265-465 dated 18.06.2012 & HPSEBL (SECTT)/ R&E/ (EAS)/ outsource (Pvt. Per.)/ Rlief Policy to accidental victim/ 2020-8-228 dated 05-05-2020. A clause regarding 'Insurance of Workmen' is included in all work awards (work orders/ turnkey/ labour contracts etc) wherein the contractor is liable to pay compensation as admissible as per the rules/ policy to the workmen/ labour engaged who met with the accident.

SOCIAL MANAGEMENT

a. Labor Law Compliance

- India is currently in the process of consolidating all labour laws into four comprehensive Labour Codes which regulate: (i) Wages, (ii) Industrial Relations, (iii) Social Security, and (iv) Occupational Safety, Health and Working Conditions. These Codes have been passed by Parliament and have received Presidential Assent. Draft National Rules for operationalising the Codes have been circulated for comments but have not been passed yet. Since labour falls under the Concurrent list, both, the central and state governments are empowered to legislate on the subject. The Himachal Pradesh Government has enacted the labor codes and framed rules. Thus, for implementation of these Codes, Rules under these must be notified by central as well as the GoHP for enforcing these in the state. For now, national and state labour legislation, with reference to terms and conditions of work, compensation and benefits will still be applicable.
- HPSEBL maintains record of following working population in the project areas: Main workers, cultivators, agriculture laborers, HH industries, other workers, marginal workers, non-working.
- The HPSEBL has an Electrical Safety Manual & General Safety Instruction manual. The instructions regarding Compliance of Provisions of CEA Regulations, installation of various equipment are also issued and being followed in HPSEBL. HPSEBL has also policy/scheme for providing compensation/relief to accident victims. In addition to this HPSEBL has also issued instructions regarding Insurance of Personal engaged in HPSEBL works. The Chief Safety Officers manage issues related to fatalities and accidents and accordingly take precautions. The accidents recorded is 69 of in 2020-21 as given below:

Detail of Accidents during FY 2020-21					
Description	Human		Animals		Total
Electrical Accidents	16	47	6	0	69

- For the current existing projects, violation/incidents and accidents are recorded & reported to the Senior Executive Engineer (E) PIU, who further notifies it to relevant enforcing authority. All these incidents/violations/ accidents are being formulated as per the guidelines/format of CEA and remedial measure are also shared with the field units by Chief Safety Officer (CSO) i.e., Chief Engineer (P&M) to avoid further accidents.

k. Land management:

- The Technical Assessment carried out for the P4R by the World Bank shows that on several occasions while the land is identified, the time taken for sourcing of government or private land is very high and delays the timelines of the work. Secondly, where private land is involved, the process for land procurement becomes lengthy and difficult. Third, most of the right of way issues are related to the construction of 33 KV lines as the tower footing increases drastically as compared to 22 or 11 kV lines. Often such lines pass through agricultural fields where the land purchase could be difficult. The compensation awarded for land acquisition often led to agitations and prolonged the execution period. The construction activities also causes discomfort for the people in the surrounding areas.
- The Land Acquisition Officers with head quarter at Mandi is working in the HPSEBL under the Administrative control of Executive Director (Personnel). They are dealing with all cases relating to Land Acquisition and compensation in the HPSEBL.

- HPSEBL requires land for hydro projects, sub-station etc. for which land is either purchased through negotiations for which a committee is formed (GO dated 17/10/2018) or acquired under the RFTCLAR&R Act 2013. The Government Order (dated 17/10/2020) lays down the rules for determining the compensation.
 - The provisions of Schedule 1 and 2 of the RFTCLAR&R is applicable for sub-station.
 - In the case of Tower Footing HPSEBL secures easement rights from the landowner. The compensation amount is 200% of the circle rate and is offered to the landowner without consultation for the land. Compensation for crop, trees/structures is evaluated by Departments of Agriculture, Horticulture, Forest or Revenue as applicable.
 - Departments of Agriculture, Horticulture, Forest or Revenue as applicable will assess the damages or loss to crops and trees for the route of transmission lines for compensating the landowners.
 - In terms of location of land is ensured to be away from waterbodies so it may not impact water resources on which the nearby communities are dependent.
 - Management of construction related impact is incorporated in the contract/bid documents.
 - For Smart Grid proposed for 13 towns, as the project involves a large existing 11 KV infrastructure spread. The DPR mentions risks related to constructional issues like: Laying of OFC cable on existing poles/ towers within town area

I. Citizen Engagement

- HPSEBL has a Public Relation Unit for publicity and coverage of various activities of the HPSEBL in Press, All India Radio, TV etc. The Public Relation Cell has mainly undertaken following activities during the year 2020-21: Attending to Public grievances and constant interactions with concerned field offices/units; Information dissemination and information resource management relating to HPSEBL's activities through mass media; Press release, display Advertisement⁴³; Regular and constant liaison with public representatives, civil administration, various Govt./ Semi Govt. departments, system power utilities and other organizations/ agencies explicitly/implicitly connected with the activities of the Board for the purpose of furtherance and smoothening the general interest of the HPSEBL; Organising exhibitions; Republic Day Tableau, Fairs, Live shows on TV and in-house training program Divisions.
- Since HPSEBL is a service provisioning agency, they are required to have a direct and continuous engagement with citizens. To ensure quality service delivery, a Consumer satisfaction index has been developed based on which some form of assessment is carried out, but these assessments are not quantified or systematically documented.

m. Grievance Redressal

- In India there is a four-digit common number (1912) allotted for electricity complaints. All operational and customer related systems are integrated with CCC so that the call agent can address all types of queries from the customers. At HPSEBL, the office of Chief Engineer, Planning Systems is responsible for overall redressal of complaints. All complaints are given to this office to address or received from different modes.

⁴³ 293 press releases, 17 display advertisement to highlight the activities of the Board have been issued. Maintaining regular contact and relations with Press, Print & Electronic Media, News Agencies and Consumers etc. Release of 553 classified advertisements to various newspapers at HPSEBL level, 8 inaugurations and 13 foundation stone ceremonies were organized during the year

- There are four ways to settle consumer grievances: (i) Dispute Settlement Committees; (ii) Forum For redressal Of Grievances of consumers: **HPSEB** Board has constituted a **Consumer Grievances Redressal Forum (CGRF)** vide orders dated 21/06/2005⁴⁴. Complaints be lodged online, telephonically, via mail as well as in person. Contact information of key officials as well as field officials are available only on the website. The HPSEBL website provides details of complaints received and addressed since April 2017 till date. It includes number of grievances, closed, pending (including long pending), unique complaint ID, nature of complaint and status.; (iii) Ombudsman⁴⁵: Regulatory Commission has appointed the Ombudsman for redressal of the complaints of the consumers who are aggrieved by an order made by the Forum or whose complaint is not redressed by the Forum; (iv) Constitution of Bijlee Adalats: HPSEB organizes Bijlee Adalats regularly to redress consumers problems /grievances to redress the grievances of the consumers except billing disputes for which Board has set up a separate Grievance redressal mechanism.
- Finally, the Citizen Interface web page⁴⁶ of HPSEBL provides procedures, processes, clarifications, contacts for various services and queries.

n. Social Inclusion and gender mainstreaming

- The Government of Himachal Pradesh has notified the reservation roster-post to implement the Supreme Court judgment and enhancement of reservation in services for other Backward Classes vide its notification dated 20-08-1998 which was adopted by HPSEBL vide office order 13-101996.
- The HPSEBL has adopted the Govt. policies for reservation of recruitments. The HPSEBL has notified equal opportunity policy for persons with disabilities employees in respect to HESEBL, under Section 21 of The Rights of Persons with Disabilities Act, 2016.
- While there are no provisions or mandate for increasing the employment opportunities of women, Widow with minor children and un-married women employees as far as possible, may be advertised subject to vacancy. Also, wives of officers/officials of Armed Forces/Central Para-Military Forces, as far as possible, be posted /appointed at suitable places subject to vacancy.
- HPSEBL has **18491 staff of whom 7396 (approximately 40%) are female**. Currently, there are three women directors (external) on the Board.
- HPSEBL has constituted Internal Complaint Committee⁴⁷ (ICC) for the cases on sexual harassment vide No. 2655-90 dated 13-4-2021. One Chairperson and five members were appointed for sexual harassment committee.
- Some of the initial findings from Gender Study supported by the WB are given below:

Table 8

Strengths	Weaknesses/Gaps	Opportunities
<ul style="list-style-type: none"> • Large number of women staffs 	<ul style="list-style-type: none"> • The office requires better facilities for 	<ul style="list-style-type: none"> • Consider in-house childcare facility for working mothers

⁴⁴ Himachal Pradesh Electricity Regulatory Commission in exercise of powers under Section 181, sub-section (2) (r) & (s) read with sub-section (5) to (8) of Section 42 of Electricity Act 2003

⁴⁵ Himachal Pradesh Electricity Regulatory Commission has framed Regulations for HP Electricity Ombudsman (Vidyut Lokayukta) in exercise of powers under Section 181, sub-section (2) (r) & (s) read with sub-section (6) & (7) of Section 42 of Electricity Act 2003.

⁴⁶https://www.hpseb.in/iri/go/km/docs/internet/New_Website/Pages/citizeninterface.htm

⁴⁷ The role of members of Internal Complaint Committee include: - Carry out orientation programmers and seminar for member of the internal and local complaint committees; Carry out employee awareness programmes and create forum for dialogues; Conduct capacity building and skill building programmes for the members of the internal committee and local complaint committees.

<ul style="list-style-type: none"> • All central and state government policies applicable to government employees • ICC functioning well • Office buses with dedicated routes (chargeable service) • Apprentice program for women • Women’s day celebrations and 26 Jan tableau theme on ‘Women in Energy’ • PR cell documents women staff stories from office and on-site • Safe office drops services for women staff working after office hours, informal case to case office adjustments for pregnant staff, office breaks for nursing mothers 	<p>young working mothers, nursing mothers like separate rooms or childcare facilities etc.</p> <ul style="list-style-type: none"> • Women employees do not have many women leaders as focal points to seek mentoring, motivation and learning support in their work especially in technical male dominated verticals 	<ul style="list-style-type: none"> • Organize annual awards and recognition events and reward meritorious men and women staff praiseworthy of their performance. • Consider regular in-house interactive sessions with women role models and leaders and appoint them as focal points • PR cell to build and disseminate success stories of women leaders in the State’s power sector • This can be tracked through the following indicators: <ul style="list-style-type: none"> ○ No. of women success stories showcased, events organized ○ No. of women facilitated for their service ○ No. of interactive sessions conducted • % of women staff participated and benefitted from these sessions
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o. Capacity Development portfolio:

- HPSEBL has a designated cell with personnel mandated to carry out responsibility for managing trainings. The Cell collates learning material as per specific topics and maintains records of expert agencies/departments⁴⁸. This Training cell works under the administrative control of Executive Director (Personnel), HPSEBL. The Sr. Executive Engineer (E) is the training officer/ manager of training cell.
- **Besides technical⁴⁹ topics, the topics covered under social management include** Disaster Management and Safety aspects; Labour Laws & procedures in dealing court cases, Tariff Reform; RTI Act, 2005; E-samadhan; Occupational health and safety, workers welfare, emergency preparedness, Grievance redressal, R&R issues.
- In the year 2021, 308 officials were provided some form of training opportunity. However, the documentation shared does not include any TNA reports nor any reports tracking the impact of trainings undertaken so far. The team shared that due to the Pandemic restrictions many activities could not be undertaken as they had been designed for face-to-face platforms. Second challenge is inadequate funding for training. Also, when a staff undergoes any training, his/her absence from work causes delays and gaps. All these factors need addressal to bring training activities on the fore front.
- Budget for training is to the tune of 2.50 to 3.00 Crs. and as per the requirement budget is also allocated from Administrative & General (A&G) expenses which has total allocation of Rs. 50 Crs. annually on account of Administrative Charges (Rent, Rates & Taxes, Statutory Dues, Telephone, Postage & Telegrams, Consultancy Charges

⁴⁸HPSEBL’s library at Kumar House is the central repository for curriculum/ learning material. The list of expert agencies hired to carry out trainings include: REC, CBIP, ESCI, TATA, NTPC and HIPA

⁴⁹ Office Procedures & financial administration, Basic Computer Skills, Conduct rules, Training on Noting and Drafting, Disaster Management and Safety aspects, Distribution transformer O&M for failure minimization, Labour Laws & procedures in dealing court cases, Managerial Effectiveness for power Distribution management, HP energy conservation Building code 2018, GEM, Sustainability of power utility-Electricity act amendment, Tariff Reform, Real Time Market and renewal integration, Solar Power Generation-Grid enabling & balancing, Virtual Training on Distribution Automation, Energy Monitoring System, Audit & Performance Budget, Computer Course on Excel, Manav Sampada, departmental enquiry, e-procurement, Cyber-crime, e-samadhan, computer course on PowerPoint, Switchgear solution for PV Solar Plants, etc.

etc.) & Other Charges (Fees & Subscriptions, Books & Periodicals, Printing & Stationery, Advertisement Expenses, Legal Charges, Audit Fee, Training to Staff etc.)

2.2.4.2 Program Activities and associated Social & Environmental Impacts

	PforR Activity	Social Implications	Environment Implications
1.	Modernization and automation of distribution networks in 13 major cities/towns and power systems operation of the state.	<ul style="list-style-type: none"> • Increase in employment opportunities of semi-skilled and unorganized workforce. • Construction induced adverse impacts that may be temporary loss of assets, access to structures, host community, safety of women and children requires to be mitigated appropriately • Strengthening systems for monitoring compliance of labour laws. 	<p>Chances of transformer oil spillage are there which could cause potential health hazards like eye irritation, skin irritation, mild toxicity due to inhalation, etc. Effects on water bodies, due to location of sub-stations and their designs. can cause interference with existing drainage pattern.</p> <p>Felling of trees at sub-station sites could be a possibility. Soil erosion and solid waste disposal issues during construction phase need to be addressed.</p>
	Setting up independent single trading desk and operationalizing it	No implications	No implications
	Strengthening governance capacities of power utility (training, GRM system, procurement manuals, transition to SAP platforms, office automation, web-based system for real time monitoring)	<ul style="list-style-type: none"> • Strengthening capacity of staff following the need assessment with special focus on women to develop and implement a structured training plan. • Review of existing E&S norms and system , gap analysis and upgradation. 	<p>It brings in opportunity to develop ESPP and E&S manual to promote E&S sustainability, even for projects those are beyond regulatory clearances are required to adopt uniform system across all planned activities to ;(a) design and screen the activities to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources;(b) avoid, minimize, or mitigate adverse impacts; (c) promote informed decision-making relating to Program’s E&S effects; and (d) implementing evidence based evaluation and monitoring arrangements.</p>

	Demand Response Management Plan developed and Implemented which will be on real time.	Responsive system to strengthen consumer needs.	
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2.3.4.3 Assessment Against Core Principles

Core Principle #1: Program E&S management systems are designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects.		
Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
<ul style="list-style-type: none"> The legal framework at national and state level is robust and the utilities take cognizance of it in its systems and practices Environment and Social Management Plan (ESMP) is required for managing substation project to address the issues of screening, managing and mitigating social risks 	<ul style="list-style-type: none"> Lack of institutional procedures, practices as the compliances are project specific. the Contractor is responsible for carrying out the work at the proposed site in full compliance with this ESMP and applicable National, State, KfW laws and WB regulations governing environmental and social impact management and occupational health and safety 	<ul style="list-style-type: none"> System to enhance transparency in mapping of Right of Way and purchase of land through established procedures needs to be considered.
Strengths	Weakness/Gaps	Opportunities/Recommendations
ENVIRONMENTAL MANAGEMENT		
<ul style="list-style-type: none"> HPSEBL developed ESMP for sub station project to mitigate any adverse environmental impacts for Sub Station project under multilateral funding agency. HPSEBL carries out the Environmental studies or Environmental Impact Assessment to identify and predict the impact of a project on the Soil, Water, Air, Flora, Fauna & Ecosystems etc. along with Land uses, landscape, cultural heritage including impacts on livelihood through environmental media, health and safety, vulnerable groups, and gender issues ESMP captures early identification for physical, environmental, ecological resources. It is stated that no action alternatives and screening for site selection are practiced. Project unlikely to have any trans-boundary effects. Route/site selection for the projects are done on walk over surveys, usage of tools such as the forest atlas, revenue papers, survey of India maps of the area. 	<ul style="list-style-type: none"> ESMP need to be followed and strengthened further for making it part of planning, operational, monitoring of all projects under HPSEBL. HPSEBL adopts activity based mitigation plans, however, It is proposed to strengthened all environmental practices in a document which will be in line with Power Grid's Environmental Social Policy Procedures (ESPP) tweaked to Himachal's requirement. ESPP enhance E&S risk management capacity of HPSEBL and adequate E and S skill sets will be employed under the project ESMP have recognized elements of environmental and social assessment of good practices for potential effects. Though present system lacks to record evidences for 	<ul style="list-style-type: none"> Environmental and Social Policies and Procedures ("ESPP") addressing HPSEBL's commitments regarding the environmental and social dimensions of sustainable development and thereby providing Project Developers notice of the general environmental and social requirements that are applied in evaluating prospective projects is suggested. It shall ensure compliance during construction and operation phase. ESPP will also define detailed monitoring protocols for ongoing or funding projects. Evidence based system oriented environmental and social assessments including adoption of good practices included early screening need to be introduced in the system Institutional strengthening and capacity building with hiring of dedicated environmental official supported by consultants with clear articulation of responsibility for managing environmental risks and impacts need to be done

<ul style="list-style-type: none"> The Electrical Safety Manual and General Safety Instructions available, which aims towards making HPSEBL network geographical area injury and accident free ESMP is carried out by the Filed Officer/Project Implementation Unit (PIU) concerned and a proactive route alignment/site selection approach has been adopted Although minimum/negative impact on the Environmental & social aspects of the area is possible in distribution system, Stakeholder consultations are held during survey and opinion of other department are taken as per the requirement Project unlikely to have any transboundary effects. The various channels for redressal of grievance of consumers at HPSEBL are: <ul style="list-style-type: none"> I. Dispute Settlement Committees. II. Forum For redressal Of Grievances of consumers III. Ombudsman: Regulatory Commission has appointed the Ombudsman for redressal of the complaints of the consumers who are aggrieved by an order made by the Forum or whose complaint is not redressed by the Forum. IV. Constitution Of Bijlee Adalats: Bijlee Adalats organized regularly to redress consumers problems /grievances to redress the grievances of the consumers except billing disputes for which Board has set up a separate Grievance redressal mechanism. 	<p>such practices in the phases of implementation and monitoring.</p> <ul style="list-style-type: none"> Though an electrical safety officer is present at HPSEBL and E&S officer is appointed by the contactor for the site, no dedicated position for an environment and safety officer is available with HPSEBL. 	<ul style="list-style-type: none"> Adopt web-based Monitoring and Evaluation (M&E) systems to monitor E&S risk management for evidence-based reporting.
<p>Core Principle #2: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing</p>		
<p>Strengths</p>	<p>Weakness/Gaps</p>	<p>Opportunities/Recommendations</p>
<p style="text-align: center;">ENVIRONMENTAL MANAGEMENT</p>		
<ul style="list-style-type: none"> HPSEBL developed ESMP for substation project to mitigate any adverse environmental impacts for Sub Station project under multilateral funding agency. During location of sub stations HPSEBL ensures that construction facilities are placed at suitable distance 	<ul style="list-style-type: none"> Existing system lacks in policy framework may be in place for guiding mandates on protection, conservation and rehabilitation of natural habitats; avoids the significant conversion or degradation of critical natural 	<ul style="list-style-type: none"> There is an opportunity to create E&S policy for guiding mandates on protection, conservation and rehabilitation of natural habitats; avoids the significant conversion or degradation of critical natural habitats and if avoiding the significant

<p>from water bodies, natural flow paths, important ecological habitats and residential areas.</p> <ul style="list-style-type: none"> • They makes all possible efforts to avoid Eco sensitive areas, Forest areas or to keep it to the barest minimum with consultation of all the stakeholders, any concern is addressed by incorporating the same into designs or mitigating the same by keeping the provisions in Environmental Monitoring Plans including budgetary provisions. • ESMP is there that takes account on impact on physical cultural properties but there is a lack in existing environmental Monitoring and Evaluation (M&E) systems to monitor environmental Management System. • A joint inspection by members from different departments, is generally conducted before finalizing site for sub-station construction. 	<p>habitats and if avoiding the significant conversion of natural habitats is not technically feasible, includes measures to mitigate or offset impacts or program activities</p>	<p>conversion of natural habitats that includes measures to mitigate or offset impacts or program activities</p> <ul style="list-style-type: none"> • A Policy covering most important messages from the Forest (Conservation) Act, 1980; India Forest Act, 1927; Wildlife (Protection) Act, 1972 etc need to be brought into place and make them implemented through system approach.
<p>Core Principle #3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.</p>		
<p>Strengths</p>	<p>Weakness/Gaps</p>	<p>Opportunities/Recommendations</p>
<ul style="list-style-type: none"> • Adequate legal provisions in the national and state laws which are a part of the bid documents for all projects • Monthly reports submitted from each of the projects includes key performance indicators on labour management 	<p>Overall the gaps in data on categories of labour to assess its compliance with the state’s mandate to employ local people There is no evidence available to establish compliance with the laws on labour camps/conditions Similarly, there are no systems on GRM specifically for labour and reporting on GBV form the worksite Risk assessment of labour influx and impact on host communities has not been considered</p>	<p>Under the P4R, HPSEBL can pilot and roll out labour law compliance tools which provide systematic, simple, and real time tracking by the contractors and Utilities. The P4R also provides an opportunity to streamline Labour Management Procedures, Labour Management Plans and Labour Influx Management to ensure safety of individual, direct, indirect, contracted, sub-contracted and community labour as well as management of risks in case of labour influx and impact on host communities.</p>
<p>Strengths</p>	<p>Weakness/Gaps</p>	<p>Opportunities/Recommendations</p>
<p style="text-align: center;">ENVIRONMENTAL MANAGEMENT</p>		
<ul style="list-style-type: none"> • At HPSEBL, the Electrical Safety Manual and General Safety Instructions aims towards making HPSEBL network geographical area injury and accident free and clearly spells out the unsafe acts which include non- 	<p>There is a gap on evidence based reporting on non-compliance if any in (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to</p>	<ul style="list-style-type: none"> • There is an opportunity to strengthen the monitoring of post project compliance to this core principle and integrate it with the DoE dashboard.

<p>adherence to safety rules, non-usage of proper safety devices, unsafe conditions, risks while handling and storing heavy objects. The Manual:</p> <ul style="list-style-type: none"> ○ Ensure that each element of programme is implemented within the periphery of the circle. ○ Ensure that all circles and down below up to lineman/supervisor in the jurisdiction comply with the programme. ○ Ensure that safety/health surveys are conducted In his/her circle on regular basis. frequently (Once per quarter). ○ Ensure that each equipment in the jurisdiction of circle is properly maintained. ○ Ensure that each Division. Sub-Division (Sub-Station & line maintenance) up to supervisor, (Jr. Engineer/line men) and other employees comply with the programme. <ul style="list-style-type: none"> • Under Sections 53 and 73 of Electricity Act, 2003, HPSEBL has made recommendations on safety procedures and practices in electrical works. • Ensure that PPE (Personal Protective Equipment) are made available to line staff/ employees concerned. • Handling and usage of flammable liquids, oils, cleaning solvents is carried out as per the prescribed' manner so that they will not become the potential source of fire hazard. • All the Deputy CE/SE (Op, ES, Generation, Protection, Electrical) at various Hydro projects under execution under HPSEBL act as Electrical Safety Officers and they ensure the following: Ensure that each element of programme is implemented within the periphery of the circle; Ensure that all circles and down below up to lineman/supervisor in the jurisdiction comply with the programme; Ensure that safety/health surveys are conducted In his/her circle on regular basis (Once per quarter); Ensure that each equipment in the jurisdiction of circle is properly maintained; Ensure that each Division. Sub-Division (Sub-Station & line maintenance) 	<p><i>toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.</i></p> <p>Paucity in institutional capacity in terms of requisite skills for effective management on environment and social management.</p>	<ul style="list-style-type: none"> • There will be provisions for public and worker safety as part of the bid / contract documents. • Streamline and integrate reporting practices that will guide operational practices and report (a) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials used; and (d) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards incorporating recommendations from District Disaster management Plans and other safety issues.(c) emergency response systems and accident and incident reporting.
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<p>up to supervisor, (Jr. Engineer) and other employees comply with the programme; Ensure that PPE are made available to line staff/ employees concerned</p> <ul style="list-style-type: none"> • HPSEBL have emergency response and disaster management plan. The Electrical Safety Manual and General Safety Instructions mentions the immediate steps to be taken in case of a landslide, as HP is prone to landslides given its rock formations and climatic conditions. Earthquake safety guidelines are also available. The aim of emergency response and disaster management plan is to prevent accidents through good designs, operation, maintenance and inspection, by which it is possible to reduce risks of an accident. • Safety devices are arranged such as the equipments designed for the protection of workmen and the Electric system eg. Rubber Gloves, Safety Belts. Fire extinguisher, line hose etc. • HPSEBL has a Relief Policy in place to provide relief to victims of fatal/ non-fatal accidents. • 'Insurance of Workmen' clause necessarily included in all work awards. • There is a Personnel Unit at HPSEBL which is assigned the work relating to regularization of daily waged workers, cases of compassionate employment (Under Employment Scheme), conversion of part time workers to daily waged workers, transfer cases of daily waged workers, Court cases of different adjudicators i.e Hon'ble Apex Court/High Court/Tribunal/Labour Court and Subordinate Court of daily waged workers. The court cases of out sources employees (Bijali Mazdoor Ekta) are also dealt by this unit. 		
<p>Core Principle #4: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards</p>		
<p>Strengths</p>	<p>Weakness/Gaps</p>	<p>Opportunities/Recommendations</p>
<p>As of now, HPSEBL follows procedures as per the E&S guideline applicable to other utilities or as per the requirements of the donors. Generally, there is no land acquisition, and only use government or available land, but</p>	<p>SMART GRID DPR does not specify how issues of temporary adverse impacts will be mitigated and monitored</p>	<p>Strengthening of the procedures to assess permanent and temporary impacts and provide appropriate mitigation measures is required and to be adopted at the Institutional level through standardizing the ESMP</p>

crop compensation and stakeholder consultations for RoW are undertaken. For this, ESMP is also prepared and implemented.		
Core Principle #5: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (hereafter referred to, interchangeably, as Tribals, Tribal Groups or Tribal Populations), and to the needs or concerns of vulnerable groups		
Strengths	Weakness/Gaps	Opportunities/Recommendations
	Information on implementation of targeted schemes for Scheduled Tribes on the utility's projects is not available.	Track implementation of schemes related to Scheduled Tribes on the utility's projects
Core Principle #6: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes (<i>Not Applicable</i>)		

2.2.5 HIMURJA

HIMURJA was established in 1989 as nodal agency to facilitate energy programs in the state and by 1994 all Hydro projects up to 5 MW were transferred to the agency. HIMURJA works to (i) promote and produce Renewable Energy under all schemes of Ministry of New and Renewable Energy, Govt. of India & State Govt; (ii) harness Hydel Potential from Projects up to 5 MW under State sector and also through Private Sector Participation (iii) boost the no. of installations of Solar Energy Technologies; (iv) develop and improve Water Mills (Traditional Gharats); and (v) create Public Awareness to encourage Renewable Energy Development & Utilization

HYDRO: Small hydro⁵⁰ is the most widely utilized form of renewable Energy making it crucial for HP Power system operations and power markets. It is considered viable because it requires small capital, short gestation, negligible adverse impacts, minimal transmission loss and more suited for sensitive mountain ecology. These projects exploit where sufficient water flows along small streams and does not involve construction of any dams or any sort of deforestation, submergence, or rehabilitation. The allotment of small hydel projects is governed through the hydel power policy framed in 2006 and its amendments till date. Similarly, allotment of the Solar Projects is governed through the Solar Power Policy of HP framed during 2014 and amended in 2016. Future allotment of Small Hydro projects will be governed as per the provisions of new Energy Policy 2021.

HP government has created avenues to encourage private investors for small hydro- HIMURJA advertises, receives, and scrutinizes applications submitted by Independent Power Producers (IPPs), namely Cooperatives, Companies, Voluntary societies, Trusts, Partnerships, Sole proprietorships wholly of Bonafide Himachalis⁵¹ who are considered eligible for allotment of such projects. 798 Small Hydro Electric Projects (100 KW- 5 MW) with capacity of 1792.29MW have been allotted for development through private sector participation (31st August, 2021). Out of these, 90 projects of 329.45 MW capacity, are commissioned.

For small hydro (under 5MW), there are two categories of projects that HIMURJA manages:

1. Projects identified by HIMURJA
2. Projects identified by Independent Private Producers

The status of projects (as on 15-3-2022) undertaken so far is given below:

⁵⁰In India, small hydro are classified on the basis of their size into SMALL (2.00 to 25 MW), MINI (100 KW to 2.00 MW) and MICRO (below 100 KW)

⁵¹ The Small Hydro Electric Projects up to 2 MW capacity are exclusively reserved for Bonafide Himachalis. Co-operative Societies, Companies, Voluntary Societies, Trusts, Partnership Concerns and Sole Proprietorship Concerns comprising wholly of Bonafide Himachalis will be eligible for allotment in this category. While allotting Projects above 2 MW and up to 5 MW, preference will be given to the Bonafide Himachalis and this includes Co-operative Societies, Companies, Voluntary Societies / Trusts, Partnership concerns: Sole Proprietorship concerns comprising wholly of Bonafide Himachalis. If there is more than one Himachali applicant, then preference shall be accorded to applicants from the relevant area and district by way of providing additional / preferential marks.

Table 9

Private Sector				
743 small Hydro projects of 1793.23 MW under Private Sector	90 of 349.45 MW have been commissioned	36 Nos projects of 116.2MW under construction,	175 Nos projects of 443.76 MW at IA stage/ clearance Stage	442 Nos of 903.73 MW are at Pre- IA stage.
Projects allotted to HIMURJA by GoHP				
13 projects of 14.17 MW	11 projects of 7.17MW have been commissioned under UNDP-GEF, BOT, Small hydro Scheme in tribal areas of the State under social obligation to meet out the energy requirement of the people of far-flung areas.		2 projects of 7.00 MW are being developed under BOT basis in H.P	55 Micro Hydel projects of 5.50MW capacity were also allotted to bonafide Himachalis during Feb. 2017 are at various stages of clearances

Govt of H.P. has also taken many initiatives for the development of small hydro projects by providing policy realization like deferment of royalty for initial 12 years for the already allotted projects, providing solid tap to 2M W projects and mandatory procurement of power by HPSEBL from the projects upto 25M W and One time amnesty for projects where IA s have been signed by the IPPs.

SOLAR: Development of Solar Power Projects is different from development of other renewable sources as it can be set up wherever barren land is available be it waste land, devoid of forests and having no other efficient alternative use. Solar PV panels are mounted and do not require land use to be changed. HIMURJA under the Department of Non-Conventional Energy Source, GoHP is also the State Level Nodal Agency⁵² for all capacities of Solar Power Projects for the purpose of state-wide publicity, invitation of application⁵³, Registration of Projects, Co-ordination, Facilitation, administration of Centre and State Government incentives if any, grant of consent/ approvals etc.

Table 10: Overall achievements since inception

SNo	ITEM	UNIT	Achievement as on 15.03.2022
I	SOLAR POWER PROJECTS		
1	Grid connected rooftop solar plants	MW	17.23
2	Ground mounted solar power projects	MW	31.65
3	Off-grid solar power plants	MW	3.68
II	SOLAR PHOTOVOLTAIC PROGRAMME		
1	SPV Street Lights	Number	1,94,319
2	SPV Home Lights	Number	29,965
3	SPV Lanterns	Number	69,935
4	Solar Study Lamps	Number	7,000
III	SOLAR THERMAL PROGRAMME		
1	Box type solar cookers	Number	37,893
2	Dish type solar cookers	Number	881
3	Solar water heating system	LPD	21,30,100

⁵²However, For Power Purchase Agreement with DISCOM, HPSEBL is the dealing authority and for statutory clearances/permissions, the concerned Department is the relevant authority like Revenue Department for lands, Forest Department for Forest clearance etc.

⁵³ of Solar Power projects on own land or land taken on lease in proximity to HPSEBL load centres in accordance with Solar Power Procurement Policy of HPSEBL

4	CST solar steam cooking systems	M square	1,026
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Under other renewable sources, HIMURJA is the nodal agency for Wind and Biomass power projects Policies for sustainable development in generating renewable energy throughout Himachal Pradesh.

2.2.5.1 Institutional structure, procedures, practices, and performance

HIMURJA has 172 sanctioned positions, out of which 108 are filled up on regular/contractual/deputation basis and 20 are filled up on outsource basis (as updated on 15-03-2022). The staff is clustered across eight broad sections namely: Small Hydro, Solar, Accounts, Establishment, Public Relations, Planning, Personal Staff, Computer Section. The adjacent figure lays out the organogram at the head office in Shimla. There are 14 offices at (12 at each district and 2 additional in remote and tribal areas – Kaza and Pangi)

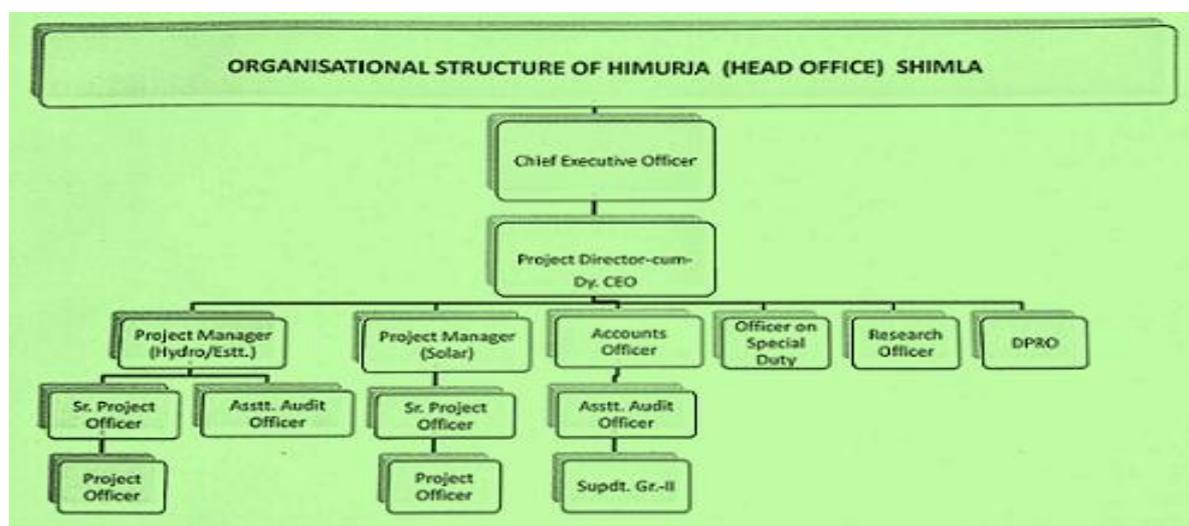


Figure 15: Organogram of HIMURJA

ENVIRONMENTAL ASSESSMENT

- a. **Overall Environmental safeguards in project sanctioning and implementation:** HIMURJA has no clear Environment Policy or Framework in place to screen, manage and mitigate environmental concerns, nor any clear mention of regulations or institutional responsibilities on safeguard issues are there in place. Therefore, the need of the hour is a format devised for environment safeguard, procedures and practices along with the monitoring and reporting for the small hydro power projects under HIMURJA. The utility needs to prepare Environment and Social Screening and Monitoring guidelines designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; (c) promote informed decision-making relating to a Program's E&S effects; (d) designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program.
- b. **Environmental Procedures and Practices:** There are guidelines available for developing small hydro power projects in the state. Any Private Investor whether Himachali or outsiders such as Private Ltd. Company / Public Ltd. Company / Partnership concern/Sole Proprietary and Cooperative Societies/Voluntary societies/trusts comprising wholly of *bonafide* Himachalis is

eligible to apply for the allotment of these Small Hydro Electric Projects. The applications for the identified Projects / Self Identified Projects shall be received after advertisements issued by Government / HIMURJA in Giriraj and in leading Newspapers. Applications shall be scrutinized by HIMURJA and approved by the Government. As the potential sites have been identified on the basis of preliminary reconnaissance only, the interested Project Developers should, in their own interest, visit the sites for verifying various Project related parameters viz. discharge, head, water availability, habitation etc. It is clearly mentioned that HIMURJA shall not be responsible for any kind of variation. Project Developers shall also ensure that the Project components do not fall in the wild life sanctuaries, national parks, eco protection zones etc. and also do not interfere / overlap with the existing and proposed Hydro Projects of State, SPSUs / CPSUs HIMURJA, Joint CPSUs and Private Project Developers, before submitting their offers on the prescribed format. There is absence of clear regulatory framework in the form of policy on part of HIMURJA for screening of projects, if applicable.

- c. The application shall include the information regarding name of the stream / nallah, estimated capacity, assessed head and assessed design discharge, layout sketch of the Project which should show the elevations of the main components of the Project, names of the Projects already allotted upstream/downstream of the proposed site, if any etc. The Joint Inspection in case of Self Identified Projects shall be carried out by HIMURJA / Committee comprising of officials of all concerned departments like HIMURJA, Revenue, Jal Shakti, PWD, Forest, Fisheries etc. including upstream / downstream Project representatives as notified by Government of Himachal Pradesh to ascertain the interference, if any, with the existing Projects along with the elevation / horizontal distance as prescribed and other aspects of concerned departments related to development of Project. The Project Officer, HIMURJA of concerned area will be Member Secretary of the Committee and he will ensure the joint inspection of the site and report thereof.
- d. For projects upto 5MW identification of sites are to be done by the IPP itself. Before allotment of the projects, IPP has to maintain 250 mts horizontal and 50 mts vertical distance in between the projects to maintain free flow of water in the stream. The project developers also have to ensure minimum discharge of 15% of lean season discharge immediately downstream, monitored by the pollution control board. There are no laid out procedures and practices regarding environmental management or mitigation.
- e. **Monitoring and Reporting:** During the implementation of the project, district level officer i.e. Sr. Project Officer/ Project Officer monitors the project. At present there are no system available for reporting of environmental compliances or non-compliances. There is a skill gap at HIMURJA when environmental or biodiversity experts are considered. This needs to be resolved for uninterrupted flow of project lifecycle.

SOCIAL ASSESSMENT

- f. HIMURJA does not take up either technical or environmental or social assessments for any projects. It does not have Social Specialists as staff or consultants, does not have its own E&S framework, policies or reporting mechanisms. The projects under HIMURJA are categorized as “white” projects⁵⁴ which means minimal E&S negative impacts and high E&S benefits.
 - o In the selection process for hydro, HIMURJA can reject applications not found fit from an environmental / ecological point of view

⁵⁴PCB categorizes projects in four categories based on E&S risks and impacts – red, orange, green and white

- To commence projects, HIMURJA provides support to IPP to secure NOCs from the departments viz; PWD, Jal Shakti, Wildlife, Fisheries and Revenue; and NOC from Gram Panchayat.
- g. **Overall Social safeguards in project sanctioning and implementation:** HIMURJA has allotted 743 Small Hydro projects to IPPs, in addition, 13 projects are being implemented under the state sector. Total 90 projects under private sector and 11 projects allotted to HIMURJA by Govt in State Sector projects are commissioned so far and only 17% (as on 15-03-2022) have been identified by HIMURJA, the rest are done by IPP. Once selected, the IPP is support in getting clearances⁵⁵ for the project. HIMURJA reviews and approves of Feasibility Reports (FR) which the IPPs prepare based on actual surveys and investigation of sites. It includes land requirement, hydrological data, layout plan etc. HIMURJA scrutinizes the Detailed Project Report based on the parameters included in the FR, realization of the potential and technical concurrence of DPR by Directorate of Energy. Government of HP (Jal Shakti Department) in coordination with HIMURJA reserves the right to abandon or reduce capacity / discharge of any identified Project for meeting the commitment towards social / environmental concerns.
- h. **Land management:** As the potential sites have been identified based on preliminary reconnaissance only, the interested Private Investors are mandated to visit the potential sites, (which are essentially the rivulets/streams on which the small hydro Projects can be developed), for verifying various Project related parameters viz. discharge, head, water availability, habitation etc.
- IPPs to ensure that the Project components do not fall in the wildlife sanctuaries, national parks, eco protection zones etc. and do not interfere / overlap with the existing/ ongoing proposed Hydel Projects of Directorate of Energy, H.P. Govt Undertakings such as HPSEBL, HPPCL, HIMURJA, Government of India undertakings and Private Investors, before submitting their offers on the prescribed format. Detailed Project Reports, even some of the clearances, stand obtained in respect of the same. In case the projects are allotted, the allottee have to bear the cost of DPR and other expenditure incurred, if any, as per actual.
 - The IPP to obtain the following clearances/NOCs/approvals within 24 months from the date of allotment. Remaining NOCs/Clearances, if any, to be obtained within 6 months from the date of signing of Implementation Agreement before starting the construction activities. These are: NOCs from the departments viz; PW, I&PH, Wildlife, Fisheries and Revenue; NOC from Gram Panchayat; FRA Certificate; Forest Land Clearance; Private Land Transfer (Permission under Section 118); Pollution Control Board; Essentiality Certificate. For transfer of Forest /Govt. Land, Private Land acquisition and PCB clearances concerned departments accept the request of the power producer based on approved feasibility Report (FR). Self-attested copies of NOCs obtained from different Departments to be submitted to the HIMURJA. The above procedure is similar for Private Sector or Government allotted projects
 - Wherever Government land, on which the right-holders have community rights, is leased out for Project development, 1%of the total cost of the Project, as fixed by HPERC on normative basis, shall be paid to Local Area Development Fund to the community for community development works. Where private land is used (see figure), no such contribution is mandatory however Project Developer may contribute to local area development voluntarily. The provision under the Himachal Pradesh Transfer of Land (Regulation) Act, 1968 in Tribal Areas is also mandated to be adhered to.

⁵⁵ NOC of Jal Shakti, Public Works, Revenue, Fisheries and Wildlife Departments; NOC from Gram Panchayat, FRA certificate.

- For the development for small hydro project 1% of the total cost of the Project, as fixed by HPERC on normative basis, shall be paid to Local Area Development Fund by the project developer. In addition to above project developer shall contribute additional 1% free power over and above the agreed rates of normal free power royalty component to the State Govt towards LADF.
- In case of Solar Projects upto 5MW where Government land is required, wholly or partly, are to be provisionally registered by HIMURJA with the prior approval of the State Level Empowered Committee (SLEC)⁵⁶.

27. If the private land of any person /farmers are acquired for the purpose of setting up of power/ other projects in the State and concerned beneficiaries claim/ opt for exchange of Govt. Land instead of money compensation and if the exchange of Govt. Land is approved by the Government on availability of land the cost of Govt. Land will be paid/ recovered from the concerned firm /executive agency of the project.

Figure 16: HIMURJA (Annex A)

The challenges on the ground include cumbersome process of seeking Forest Rights Certificate, mobilizing Gram Sabha meetings, ensuring due quorum. Further, due to the terrain, land parcels are scattered, demarcation is a challenge and private owners too sometimes are difficult to identify in which case Revenue Department provides necessary support. Reasons for condonation of delay in achieving various milestones not attributable to the project developer shall be considered and decided by the head of the department (HIMURJA) after approval of Administrative Department. HIMURJA does not take LADA funds- IPPs submit the amount to the concerned LADC. Therefore, there is no direct engagement of HIMURJA in respect of taking of LADA funds.

- i. **Livelihood and employment:** Of the total employment potential in the project, at construction and operations stages, 80 % employment will be provided to bonafide residents of Himachal Pradesh, with preference to those who transfer private land or to the right-holders of the Revenue estate where Government land is leased out for Project.
- j. **Rights of local population:** The Project Developer shall ensure to protect the water rights of the local inhabitants for drinking and irrigation purposes etc. by verifying the revenue entries and activities of Jal Shakti department to ensure that such rights are not infringed upon. Any difference/ dispute in the matter shall be resolved by the parties hereto by mutual negotiations, failing which, the matter shall be referred to a two tier grievance redressal process. The matter shall be addressed by the departmental Grievance Redressal committee constituted under the chairmanship of CEO Himurja. In case the issue remains unresolved to the satisfaction of project developer, the matter shall be referred to the State Govt Committee.
- k. **Other benefits:** The Electricity Act, 2003 and the National Electricity Policy of 2005 provides for license free generation and distribution in rural areas, open access in distribution system, standalone system / non-conventional / renewable resources for generation and distribution. Distribution licensee shall be free to undertake generation and generating Company shall be free to undertake distribution. Thrust has been laid to complete rural electrification and provide for management of rural distribution by Panchayats, Cooperative Societies, Non-

⁵⁶The Committee comprises of the following: (i) Additional Chief Secretary /Principal Secretary (MPP& Power and NES)-Convener; (ii) Additional Chief Secretary /Principal Secretary (Revenue); (iii) Principal Chief Conservator of Forests; (iv) Director Energy, Directorate of Energy; (v) Managing Director, HPSEBL; (vi) Managing Director, HPPTCL; (v) Chief Executive Officer, HIMURJA- (Member Secretary).

Governmental Organizations, and Franchisees etc. The IPPs can take the benefit of such schemes.

- I. Communication and outreach:** HIMURJA have a role to promote renewable energy as well as the products available from time to time. The common mediums for information dissemination include newspapers, websites, physical banners, public events etc. Subsidies continue to be a factor that motivates citizens to adapt to renewable energy products. The district offices have a cadre of field motivators who also play a role of information dissemination. Some of the other examples include exhibition vans, Solar fairs and other activities carried out by the Public Relations Officer in HIMURJA.

m. Gender and Social Inclusion:

- HIMURJA has taken various initiatives to increase benefits for the vulnerable areas and communities: An annual budget is provided under the Scheduled Caste Development Programme for installation of SPV Street Lighting Systems in S.C. villages, Solar home lights⁵⁷ are provided to SC, BPL families for which budget is made available under Special Central Assistance to Scheduled Caste Development Programme. The State Govt is providing funds under the Tribal Area Development programme for providing 250 Watt Off Grid Solar Plants to Below Poverty Line families living in the tribal areas and so far 2695 Nos systems have been provided.
- Ministry of New and Renewable Energy is providing 40% Central Financial Assistance for installation of Grid connected Rooftop Plants in Domestic sector upto 3 kW and above 3 kW upto 10 kW 20% assistance is provided. The State Govt is also aiding of Rs 6000=00 per kW on Domestic sector only.

- n. Gender and inclusion:** HIMURJA has a staff of 127, which includes 19 women (15%), 28 SC, 3 ST, 5 PwD and 47 General. Women comprise 3% of the staff in technical roles and 12% in non-technical roles. Initial findings from a Gender Study supported by WB are given below:

Table 11

Strengths	Weaknesses/Gap	Opportunities
<ul style="list-style-type: none"> • All central and state government policies applicable to government employees • ICC formed • Safe office drops services for women staff working after office hours, informal case to case office adjustments for pregnant staff, office breaks for nursing mothers 	<p>The survey shows that women staff has low confidence to fully participate and represent their ideas in technical deliberations, decision making meetings and project sanctioning discussions which is detrimental to their long-term career progression.</p>	<ul style="list-style-type: none"> ○ Explore opportunities for including women entrepreneurs or groups in the small renewable energy projects ○ The above can be tracked by the following indicators: No. of new trainings organized for staff; % of women staff participated and benefitted from these trainings; No. of SHGs/Women entrepreneurs on-boarded for small renewable energy projects

- o. Labour Issues:** The Project Developer is mandated to provide minimum **80% employment** to the bonafide Himachalis whose names are registered on any employment exchange located in the State of Himachal Pradesh. The Project Developer is required to provide mandatory

⁵⁷In the year 2020, 4500 families were provided solar home lights

employment related information to the Department of Labour and Employment, GoHP on a monthly basis. In addition, Project Developer is mandated to inform the **local Police Station and the Labour Officer** about the details of the Labourers and other work force engaged who are both from within the State, country or outside the country, regularly.

- p. **Grievance Redressal:** Currently there are a multiplicity of systems and mediums for launching complaints which includes the following:

Table 12

HIMURJA		External to HIMURJA	
Physical	Physical and Telephonic	Online	Physical
<ul style="list-style-type: none"> For issues faced by various project developers during the implementation of the Project, a state level committee⁵⁸ under the chairpersonship of Hon'ble Power Minister of Himachal Pradesh is set up. For project affected areas/citizens: Project Officers have complaint register For staff, there are physical review of complaints. There is Staff Union, First Service Committee, and a Final Executive Committee (Apex Body) for all staff complaints 	<ul style="list-style-type: none"> For Solar products installation and repair related – handwritten complaints are received at offices of the repair centres. In addition, telephone number of HIMURJA office and the supply firm is also displayed. The complaints must be addressed within ten days. Currently, MNRE is developing a centralized digital system on this front. 	State Govt. level following are the online portals a/w links to launch the complaint/issues. eSAMADHAN: https://esamadhan.nic.in/ CM Helpline: https://cmsankalp.hp.gov.in/ Him Pragati: https://himpragati.nic.in/index.html	Govt. Of HP has a weekly public hearing at the District level called Jan Manch in which any concerned complaints are forwarded to HIMURJA

While there in information on what the systems are, there is no information on the accessibility, effectivity, and efficiency of the systems. HIMURJA and the energy sector per se requires a robust and accessible GRM, with effective Response and Redressal, regular analysis of data and implications to complete the feedback loop and make required systemic changes.

For issues faced by various project developers during the implementation of the Project, a state level committee under the chairpersonship of Hon'ble Power Minister of Himachal Pradesh is set up. For project affected areas/citizens, the Project Officers have complaint register. For staff, there are physical review of complaints. There is Staff Union, First Service Committee, and a Final Executive Committee (Apex Body) for all staff complaints. In addition, telephone number of HIMURJA office and the supply firm is displayed. Currently, MNRE is developing a centralized digital system on this front. While there in information on what the systems are, there is no information on the accessibility, effectivity, and efficiency of the systems. HIMURJA and the energy sector per se requires a robust and

⁵⁸ as per the provisions contained under clause 4.1.2 regarding policy provisions for private Project Developers implementing Projects above 5MW capacity

accessible GRM, with effective Response and Redressal, regular analysis of data and implications to complete the feedback loop and make required systemic changes.

2.2.5.2 Program Activities and associated Social Impacts

	PforR Activity	Social Implications	Environment Implications
1	Strengthening governance capacities of the utility (skill upgradation and structured training) Complaint Redressal System for E & S Systems	<ul style="list-style-type: none"> Strengthening capacity of staff following the need assessment with special focus on women to develop and implement a structured training plan. Review of existing E&S norms and system, gap analysis and upgradation. 	<ul style="list-style-type: none"> Capacity Development of staff on E&S risk identification and management by providing training on environmental risk screening, impact assessment, mitigation and management. Development of E&S tools for screening and management of E&S risks and impacts for solar or small hydro projects will strengthen institutional systems. E&S manual will promote E&S sustainability, by adopting uniform system across all planned activities to ;(a) design and screen the activities to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources;(b) avoid, minimize, or mitigate adverse impacts; (c) promote informed decision-making relating to Program’s E&S effects. Strengthen capacity with web-based Monitoring and Evaluation (M&E) systems to monitor E&S risk management for evidence-based reporting
	Digitisation, exploration & assessment study of SOLAR potential of the state	Assessment to include screening of social risks in each selected site	<ul style="list-style-type: none"> Assessment on solar potential will not have any environmental risk. This will give opportunity to also develop environmental management systems for risks those will be there in development stage.

- Under the World Bank project, while HIMURJA is covered through Integrated Resource Plan (IRP), no direct investments are envisaged.
- HIMURJA requested Bank’s support on robust monitoring as they currently have a limited capacity given that they are present in all the districts (15 offices in the state) in carrying out screenings related to land impacts and other E&S issues, digitization, etc.

2.2.5.3 Assessment Against Core Principles

Core Principle #1: Program E&S management systems are designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects.		
Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
<ul style="list-style-type: none"> The legal framework at national and state level is robust and HIMURJA is supported by utilities and their systems for implementation and monitoring. There are multiple systems for GRM within the state and the sector to ensure citizens, staff and other stakeholders can launch complaints and feedback and seek redressal 	<ul style="list-style-type: none"> The current practices of E&S are utility and project centric where the donor requirements take precedence rather than a unified/integrated policy and systems for the sector. HIMURJA does not have the mandate, corresponding systems and capacities on social risk management despite significant social impacts of the projects its supports Available documentation makes it difficult to track accessibility, efficiency and effectiveness of the GRM 	<ul style="list-style-type: none"> Draft Power Sector Policy of 2021 recognizes social risk management and has scope to approach social impacts and risk mitigation more comprehensively and effectively. As a nodal agency, for alternate energy, HIMURJA needs to map the existing E&S systems and procedures across utilities to develop an integrated framework, develop or augment capacities and set up reporting/monitoring mechanisms to track implementation and results A sector-wide cumulative impact assessment to identify the strengths and gaps as well as inform the overall development of systems for E&S risk management. Existing Institutional support needs to be augmented with resources for personnel, funds, expertise, and overall support to meet the requirements of E&S issues The P4R provides an opportunity to develop guidelines, procedures, and indicators to track performance on overall social risk management, land management, benefit sharing, stakeholder engagement, labour law compliance, social inclusion, gender mainstreaming and capacity development An integrated GRM which uses multiple mediums (phone, postal, email, mobile app, face to face) to launch complaints, track them, have a responsibility matrix, escalation mechanism, redressal timelines and closure protocols. Project level Selection process, Implementation, and monitoring parameters: HIMURJA can strengthen the systems by adding social indicators for selection, implementation and monitoring renewable energy projects. As of now, 60-70% weightage is given to the financial evaluation while 30-40% weightage is given to

		the technical evaluation. This can be reviewed, and social parameters can be added in the technical section
Strengths	Weakness/Gaps	Opportunities/Recommendations
ENVIRONMENTAL MANAGEMENT		
<ul style="list-style-type: none"> The allotment of small hydel projects is governed through the Hydro Power Policy framed in 2006 and its amendments till date. Similarly, allotment of the Solar Projects is governed through the Solar Power Policy of HP framed during 2014 and amended in 2016. At present it is guided by application formats developed based on Hydro Power Policy, 2006 and Solar Power Policy, 2014 and respective amendments till date. The application format states that Project Developers shall also ensure that the Project components do not fall in the wildlife sanctuaries, national parks, eco protection zones etc. and do not interfere / overlap with the existing and proposed Hydro Projects As mentioned in the Himachal Hydro Policy 2021, no applications will be entertained for projects on major rivers such as Satluj, Beas, Chenab, Ravi, Yamuna and on Tirthan River and its tributaries in Kullu district. It is adopted in the policy that no small hydro should come up in the major river basins of Ravi, Satluj, Chenab or Yamuna wherein minimum e-flow regulations are applicable. For projects upto 5MW identification of sites are to be done by the IPP itself. Before allotment of the projects, IPP must maintain 250 mts horizontal and 50 mts vertical distance in between the projects to maintain free flow of water in the stream. The project developers also must ensure minimum discharge of 15% of lean season discharge immediately 	<ul style="list-style-type: none"> No formal E&S system exists including screening. There is a need to make the strategic, technical, and site alternatives consideration and a comprehensive environmental and management system needs to be developed in lines with best international practices. At present no such system exists for explicit assessment of potentially induced, cumulative, and transboundary impacts. In case of dispute the E&S issues were brought to notice and there is no formal system exists. There is lack of expert skill set at HIMURJA as they don't have dedicated personnel or consultants to address E&S issues in planning, implementation and monitoring stages. 	<ul style="list-style-type: none"> Institutional strengthening and capacity building with training of official with clear articulation of responsibility for managing environmental risks and impacts need to be done. The utility needs to prepare Environment and Social Screening and Monitoring guidelines under ESPP designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; (c) promote informed decision-making relating to Program's E&S effects and (d) designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program.

<p>downstream, monitored by the pollution control board.</p> <ul style="list-style-type: none"> • It is made part of project application that in case any existing facilities including but not limited to, irrigation systems, water supplies, roads, bridges, buildings, communication system(s), power systems and water mills are adversely affected because of the implementation of the Project, the Project Developer shall be responsible for taking remedial measures to mitigate such adverse effects. The cost of the above remedial measures shall become a part of the Project cost. Such facilities shall be mutually identified and agreed upon between the Project Developer and the State Government. • During the implementation of the project, district level officer i.e. Sr. Project Officer/ Project Officer monitors the project. • For issues faced by various project developers during the implementation of the Project, a state level committee under the chairpersonship of Hon'ble Power Minister of Himachal Pradesh is set up. For project affected areas/citizens: Project Officers have complaint register. For staff, there are physical review of complaints. There is Staff Union, First Service Committee, and a Final Executive Committee (Apex Body) for all staff complaints. In addition, telephone number of HIMURJA office and the supply firm is displayed. Currently, MNRE is developing a centralized digital system on this front. • Govt. Of HP has a regular hearing at the District level called Jan Manch in which any concerned complaints are forwarded to HIMURJA.State Govt. level following are the 		
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<p>online portals a/w links to launch the complaint/issues. eSAMADHAN: https://esamadhan.nic.in/ CM Helpline: https://cmsankalp.hp.gov.in/ Him Pragati: https://himpragati.nic.in/index.html Public Service Guarantee Act, 2011.</p>		
<p>Core Principle #2: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing</p>		
<p>Strengths</p>	<p>Weakness/Gaps</p>	<p>Opportunities/Recommendations</p>
<p style="text-align: center;">ENVIRONMENTAL MANAGEMENT</p>		
<ul style="list-style-type: none"> • In the application format it is stated that Project Developers shall also ensure that the Project components do not fall in the wild life sanctuaries, national parks, eco protection zones etc. and also do not interfere / overlap with the existing and proposed Hydro Projects. • It is adopted in the policy that no small hydro should come up in the major river basins of Ravi, Satluj, Chenab or Yamuna wherein minimum e-flow regulations are applicable. • A Policy covering most important messages from the Forest (Conservation) Act, 1980; India Forest Act, 1927; Wildlife (Protection) Act, 1972 etc need to be brought into place 	<ul style="list-style-type: none"> • No formal screening system exists to avoid potentially important biodiversity and cultural resource areas. • There is no policy of framework available to avoid, protect or conserve critical natural habitats for existing, ongoing and pipeline projects. 	<ul style="list-style-type: none"> • A policy framework backed up by ESMPP and E&S manual stating the clear mandates on protection, conservation and rehabilitation of natural habitats; avoids the significant conversion or degradation of critical natural habitats and if avoiding the significant conversion of natural habitats is not technically feasible, includes measures to mitigate or offset impacts or program activities need to be prepared.
<p>Core Principle #3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.</p>		
<p>Strengths</p>	<p>Weakness/Gaps</p>	<p>Opportunities/Recommendations</p>
<p style="text-align: center;">SOCIAL MANAGEMENT</p>		
<ul style="list-style-type: none"> • Adequate legal provisions in the national and state laws which are a part of the bid documents for all projects 	<p>Absence of clear systems and capacities to map social risks and track social outcomes.</p>	<ul style="list-style-type: none"> • P4R provides an opportunity to streamline Labour Management Procedures, Labour Management Plans and Labour Influx Management to ensure safety of individual, direct, indirect, contracted, sub-contracted and community labour as well as management of risks in case of labour influx and impact on host communities.

<ul style="list-style-type: none"> Monthly reports submitted to DoE from each of the projects includes key performance indicators on labour management 		<ul style="list-style-type: none"> The procurement process has a room for improvement, especially Labour laws of the state are applicable to all these projects. Suitable directions are given to Project developers to ensure compliance.
Strengths	Weakness/Gaps	Opportunities/Recommendations
ENVIRONMENTAL MANAGEMENT		
<ul style="list-style-type: none"> Community, individual, and worker safety through the safe design, construction, and O&M of physical infrastructure have been incorporated in the Himachal Pradesh Swarn Jayanti Energy Policy 2021. These measures are to be strictly adhered to by the respective project developer while execution of the project. 	<ul style="list-style-type: none"> At present system doesn't have any EHS framework or dedicated personnel No measures of monitoring and evaluation of environmental concerns and conditions regarding community health & safety including disaster mitigation is found at HIMURJA <i>System to identify and address exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials is not in place</i> 	<ul style="list-style-type: none"> EHS framework and dedicated personnel need to be brought in as part of institutional strengthening. That should be made part of ESMF guidelines. HIMURJA need to constitute E&S team as part of PMU wherein trained professional can be hired who will help in developing the environmental management system and implement it. Develop and integrate reporting practices that will guide operational practices and report (a) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials used; and (d) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards incorporating recommendations from District Disaster management Plans and other safety issues.(c) emergency response systems and accident and incident reporting.
Core Principle #4: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards		
Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
<p>Policies are robust (Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 and Himachal Pradesh Rules, 2015. In addition, sectoral policies such as HPPCL's Resettlement and Rehabilitation Policy, 2006 and HPPTCL's Resettlement, Relief, Rehabilitation and Compensation Policy, 2011) to protect the interests of the project affected persons during construction stage of energy sector projects. The Tariff Policy, 2006 and Himachal Pradesh Land Area Development Fund enumerates adequate benefit sharing mechanisms for people adversely affected by hydropower projects</p>	<ul style="list-style-type: none"> Absence of Integrated management and reporting Need for Studies for adverse impacts Systems required for GRM tracking 	<ul style="list-style-type: none"> The power sector to take cognizance of the RFCTLARR 2013 such that the existing frameworks, systems and practices across the sector are aligned to the provisions of RFCTLARR 2013 There are good practices within DoE, HPPTCL, HPPCL, HPSEBL using the existing legal frameworks as well as their internal systems. These can be aggregated and used to develop comprehensive guidelines which can be integrated in the mandate and systems of HIMURJA. Integrated reporting systems against clear indicators to be developed for the hydro, solar, biomass and wind so the land management, adverse impacts and benefit sharing can be tracked

Core Principle #5: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (hereafter referred to, interchangeably, as Tribals, Tribal Groups or Tribal Populations), and to the needs or concerns of vulnerable groups

Strengths	Weakness/Gaps	Opportunities/Recommendations
SOCIAL MANAGEMENT		
	Information on implementation of targeted schemes for Scheduled Tribes on the utility's projects is not available.	<ul style="list-style-type: none"> Track implementation of schemes related to Scheduled Tribes on the utility's projects

Core Principle #6: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes (*Not Applicable*)

2.2.6 HPSLDC

The Himachal Pradesh State Load Despatch Centre (HPSLDC) came into existence in the year 2002 and was being operated/controlled directly by Himachal Pradesh State Electricity Board Ltd. (HPSEBL) till 2010. The statutory functions of SLDC were undertaken by an HPSEBL under the control of Directorate of Energy, Govt. of HP since 2010 to give an effect to the provisions of Electricity Act 2003. Further, Govt. of Himachal Pradesh declared the HPSLDC as an Independent Authority on 14.08.2018 vide order no. MPP-F (10)-21/2018 dated 14.08.2018. which is the First and Unique of its kind in Country. HPSLDC is the apex body to ensure integrated operation of the power system in the HP State.

HP State Load Despatch Centre is responsible for Optimum scheduling and despatch of electricity within the State, Monitoring Grid Operations, Keep accounts of quantity of electricity transmitted through the State Grid, Supervision and control over the Intra- State Transmission System and carrying out Real Time Operation for Grid Control & despatch of electricity within the State through secure and economic Operations of the State Grid on 24x7 RTC basis as per Electricity Act., 2003, CERC, HPERC Regulations and Grid Code

2.2.6.1 Institutional structure, procedures, practices, and performance

- a. HP State Load Despatch Centre (HPSLDC) discharges its roles and functions under Section 31 and 32 of the Act, including economic despatch of electricity from generating station to load centre online & real time monitoring and control of electricity supply in the area of supply / State. Electrical Safety Manual and General Safety Instructions, 2015 put forward by Himachal Pradesh State Electricity Board Limited (HPSEBL) forms an integral part of functioning of HPSLDC, whereby they are committed to provide a safe working place and environment to its staff and other stakeholders.
- b. All the staff in HPSLDC is on secondment basis from other utilities so they follow their employment is governed by the rules and systems of parent/principle employer. Staff posted in HPSLDC is trained, re-trained & retained based upon on the system requirement on different power system modules.
- c. There are 50 overall staff of which 11 are women (22%). Women comprise 10% of the staff in technical roles and 12% in non-technical roles. 64% of female employees are permanent staff and 36% are outsourced. . There are three female employees: One technical and two non-technical.
- d. Although, the standard operating procedure for e-waste management at HPSLDC is following the E-Waste management policy, 2011 and E-Waste management, 2016 & subsequent amendments for disposal/recycling of E-waste as per schedule I and II; but HPSLDC has no clear Environment Policy of its own to highlight the effects (positive and negative) on environment. Few of the other policies followed by HPSLDC for smooth functioning are the CERC-regulation on renewable energy certificate, CERC Renewable Energy Tariff Regulations, 2020, Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014. HPERC regulations, CEA regulations, CERC regulations are followed by HPSLDC for smooth functioning of the organization like issuance of transferable and saleable certificates for the development of market in power from non-conventional energy resources.
- e. HPSLDC does not have a specialized Environment and Social Cell for implementation of mitigation measures against the ill effects of the project on the environment. In the Hydro Policy of the state of Himachal Pradesh, it has been mentioned that HPSLDC shall be

modernized to meet the future requirements and personnel shall be provided adequate training opportunities for acquiring necessary skill to efficiently manage the SLDC. Regular studies to assess Transfer Capabilities, are carried out for ensuring reliability and security in the respective control area of the State. Training related to environmental effects and its mitigations are not mentioned.

- f. Daily monitoring of centralized AC plant, window/split AC, use of computer and office automation, use of light, AHU etc ensures a low RPN score of around 25. Mitigation measures like installation of UVC Ammeters at AC plant and Installation of VFD on AHUs have been proposed at HPSLDC. Generation of plastic waste in the form of used plastic cartridges are sent back to the manufacturer for proper recycling and/or disposal. Eco-friendly measures like use of soft copies, double side printing, use of single side of pre-printed papers, etc are a norm at HPSLDC.
- g. HPSLDC being a bulk consumer of electrical and electronic equipment listed in Schedule- I and II of E-Waste Management Policy 2011, ensures that e-waste generated by them is channelized to authorized collection centre or registered dismantler or recycler or is returned to the pickup or take back services provided by the producers. It also ensures that all records of e-waste generated by them are available for scrutiny by the State Pollution Control or Pollution Control Committee concerned.
- h. Counselling of individuals have been suggested for stress induced due to long sitting hours at work place; for risks due to switching on and off of computers, training and awareness sessions have been proposed. For hazard identification and risk assessment during operation of VPS, UPS, 75 kVA DG set, water pump, AC plant, etc, Service Level Agreement (SLA) is the most frequently suggested control measure.
- i. Though measures have been suggested by HPSLDC for mitigation of environmental effects of its activities and for hazard identification and risk assessment, it remains unclear as to who shall be held accountable on non-compliance to these measures.
- j. Internal Complaint Committee (ICC) comprising of 4 personnel (1 Chairperson & 3 Members) in accordance with the guidelines laid down on “The Sexual Harassment of Women at Workplace, Act & Regulation, 2013” has been constituted. No grievances received yet.
- k. The employees raise their complaints to the head of the HPSLDC and then it can be redressed.
- l. Staff or officials on secondment, consultants, contractors, interns etc. can register a complaint by giving application on a paper. So far, no complaints have been received or registered.
- m. HPSLDC provides six weeks or six months Industrial Training as per to the students at various professional colleges. Around 25 students are undertaken for training in each year. There is no reservation for women students
- n. The findings from the gender study identifies and provides specific recommendations the following:

Strengths	Gaps:	Recommendations:	Tracking indicators:
<ul style="list-style-type: none"> • All central and state government policies applicable to government employees • ICC formed 	<ul style="list-style-type: none"> • Women staff in technical roles with new age technologies (SCADA etc) find it difficult to apply their learning and must be always dependent on male colleagues • Women who are coming from areas with poor access to public transport 	<ul style="list-style-type: none"> • HPSLDC from time to time imparting trainings through renowned institutes to all the technical staff including women staff. Recently, training 	<ul style="list-style-type: none"> • No. of new trainings organized for staff • % of women staff participated and benefitted

<ul style="list-style-type: none"> • Apprenticeship program • Training opportunities for staff under SAMAST framework • Demand based industrial training to engage college students • Study leave • Safe office drops services for women staff working after office hours, informal case to case office adjustments for pregnant staff, office breaks for nursing mothers • Feedback form on website 	<p>and last mile connectivity find it difficult to opt for evening and night shifts.</p> <ul style="list-style-type: none"> • Resting/Recreational/Break rooms facilities are presently common for both men and women staff 	<p>on SCADA/ EMS system and other modules has been imparted during June- July, 2022.</p> <ul style="list-style-type: none"> • Separate Resting/Break rooms for women staff 	<p>from these trainings</p>
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2.2.6.2 Program activities and associated social and environmental impacts

	PforR Activity	Social Implications	Environment Implications
1	Strengthening governance capacities through reskilling, training and automation of office.	<ul style="list-style-type: none"> • Strengthening capacity of staff following the need assessment with special focus on women to develop and implement a structured training plan. • Review of existing E&S norms and system, gap analysis and upgradation. 	Program unlikely to have adverse impact on critical natural habitat.
2.	Implementation of upgraded SCADA system at SLDC	No implication	Production of large amount of e-waste seems to be one of the few potential effects on the environment. Environmental aspects like energy saving, e-waste management can

			be further improved with system improvement.
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2.2.6.3 Assessment against core principles

Core Principle #1: Program E&S management systems are designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects.			
SOCIAL MANAGEMENT: The overall policy in the country and the state related to social management like resettlement, benefit sharing, citizen engagement, social inclusion, gender mainstreaming and labor rights are in place. The mandate of SLDC and the activities under PforR are limited to digital solutions and backend data support which do not have specific social implications.			
ENVIRONMENTAL MANAGEMENT: The assessment of program systems under this principle determined that clear articulation of legal and regulatory framework with respect to environmental effects and mitigation is required. Due its nature of work there is generation of e-waste that can be one of the potential effects on the environment. Provisions for management of e-wastes like computers, copiers, fax machines etc, which are not working or nearing or at the end of their useful lifecycle are in place at HPSLDC. Environmental aspects like consumption of electricity, consumption of natural resources, generation of plastic wastes, generation of noise have been brought into consideration. Mitigation measures like regular monitoring, use of competent tools, use of energy efficient lightings, training and awareness are the proposed control measures at HPSLDC. All these can be covered under ESPP. Digitize complaint management or grievance redressal mechanism for staff, consultants, contractors, and interns so it is easily accessible, trackable, and responsive.			
Core Principle #2: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing			
ENVIRONMENTAL MANAGEMENT: The program and nature of activities of HPSLDC is unlikely to have adverse impact on critical natural habitat and physical cultural heritage. The assessment of the program system under this principal suggests that E-Waste and Safety protocols covering most important messages from the waste management & handling rules, etc need to be brought in. This necessitates bringing on board experts to strengthen institutional capacity in terms of sustainable management and/or disposal of wastes.			
Core Principle #3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.			
SOCIAL MANAGEMENT: SLDC has staff on secondment so their grievances and day to day work issues are handled by the parent employer. It is recommended that SLDC creates an internal forum to discuss concerns and complaints in a timely and accessible manner. In addition, SLDC can create avenues to increase women staff which is only 4 percent now.			
ENVIRONMENTAL MANAGEMENT: (Public and Worker Safety) Mitigation measures like installation of UVC Ammeters at AC plant and Installation of VFD on AHUs have been proposed at HPSLDC. For hazard identification and risk assessment during operation of VPS, UPS, 400kVA DG set, water pump, AC plant, etc, Service Level Agreement (SLA) is the most frequently suggested control measure. HPSLDC ensures that e-waste generated by them is channelized to authorized collection center or registered dismantler or recycler or is returned to the pickup or take back services provided by the producers. It also ensures that all records of e-waste generated by them are available for scrutiny by the State Pollution Control or Pollution Control Committee concerned.			
Core Principle #4: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards <i>(Not Applicable)</i>			
Core Principle #5: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (hereafter referred to, interchangeably, as Tribals, Tribal Groups or Tribal Populations), and to the needs or concerns of vulnerable groups			
Information on implementation of targeted schemes for Scheduled Tribes on the utility's projects is not available.			

Core Principle #6: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes (*Not Applicable*)

SECTION 3: ANNEXURES

Annex 1: Stakeholder consultations

Sr No	Subject	Participants		Date	Venue
1	Discussions on E&S aspects, which included: E&S assessment, Policy Framework, Regulatory Provisions, Environmental systems on addressing screening, scoping, assessing, M&E, disaster mitigation, pollution presentations, resource efficiency, cumulative imoact assessments, land management, social inclusion, addressing gender gap, preventive measures gender-based violence, labour management, occupational health and safety and labour influx, Citizen engagement, grievance management, institutional strengthening and staffing etc.	DoE	<ul style="list-style-type: none"> • Superintending Engineer, Nodal Officer DoE 	13 - 14 th Sept., 2021	Virtual
	HPPTCL	<ul style="list-style-type: none"> • Director (Projects) and • Environmental Expert 			
	HPPCL	<ul style="list-style-type: none"> • DGM Corporate Planning • DGM Contracts • AO R&R 			
	HPSEBL	<ul style="list-style-type: none"> • Chief Engineer (System Planning) Nodal officer of HPSEBL • Superintending Engineer (System Planning) 			
	HIMURJA	<ul style="list-style-type: none"> • Chief Opeating Officer • Director, Nodal Officer of Himurja 			
	SLDC	<ul style="list-style-type: none"> • Sr. Executive Engineer (SCADA/EMS) • Sr. Executive Engineer (SAMASTA/RA) • Assistant Engineer (SCADA) • Junior Engineer (SCADA) • Consultant (SCADA) 			

Sr No	Subject	Participants		Date	Venue
2	Meeting/ discussion on draft ESSA and feedback from Individual entities	<ul style="list-style-type: none"> DoE HPPTCL HPPCL HPSEBL HIMURJA 	<ul style="list-style-type: none"> Superintending Engineer, Nodal Officer DoE GM (Projects), HPPTCL's Nodal Officer, Dy. Manager (Projects) and Environmental Consultant DGM Corporate Planning DGM Contracts AO R&R Chief Engineer (System Planning) Nodal officer of HPSEBL Superintending Engineer (System Planning) Chief Operating Officer Director, Nodal Officer of Himurja 	15 th - 16 th March, 2022	Offices of Individual Entities and Hotel Cecil in Shimla
3	Gender Study - Presentation on Inception report	<ul style="list-style-type: none"> All relevant officers from all entities i.e. DoE, HPPTCL, HPPCL HPSEBL, HIMURJA and HPSLDC 		30 th March 2022	Virtual
4	Gender Study: Barriers and Opportunities for Women's Employment and Workforce Participation in Himachal Pradesh Power Sector (Interaction with HPPTCL)	<ul style="list-style-type: none"> Director (Contract & Planning), GM (Projects), Dy. Manager (Projects), Environmental Consultant HR Team and All Women staff of HPPTCL 		6 th April, 2022	HPPTCL Office, Shimla
5	1 st Stakeholder's Consultation	<ul style="list-style-type: none"> All relevant officers from all entities i.e. DoE, HPPTCL, HPPCL HPSEBL, HIMURJA and HPSLDC with other stakeholders like CBOs, project developers, women staff, opinion leaders attended (detailed minutes enclosed) 		20 th May, 2022	Dharamsala

Sr No	Subject	Participants	Date	Venue
6	2 nd Stakeholder's Consultation	<ul style="list-style-type: none"> All relevant officers from all entities i.e. DoE, HPPTCL, HPPCL HPSEBL, HIMURJA and HPSLDC with other stakeholders like CBOs, project developers, women staff, opinion leaders attended (detailed minutes enclosed) 	5 th July, 2022	Peterhoff Hotel, Shimla
7	Workshop on Labour tool by WB	<ul style="list-style-type: none"> DGM (Contract) Dy. Manager (Projects), Environmental Consultant 	13 th July, 2022	Peterhoff Hotel, Shimla

**Proceedings of the Environment, Social System Assessments (ESSA) 2nd Stakeholders
Consultation Meeting held on 5th July, 2022 at Shimla regarding upcoming
World Bank Funded ‘Himachal Pradesh Power Sector Development Program’**

The 2nd Stakeholders Consultation meeting with regard to Environment, Social System Assessments (ESSA) for upcoming World Bank Program (Himachal Pradesh Power Sector Development Program) was held at Hotel Peterhof, Shimla, on 05.07.2022. The meeting was co-chaired by Sh. _____, CEO, Himurja and Er. _____ M.D. HPSEBL.

The list of the Participants as per Annexure-A.

At the outset Er. _____ Deputy Chief Engineer, Directorate of Energy welcomed all the participants present in the meeting and briefed about the purpose of the 2nd Stakeholders Consultation meeting in regard to the World Bank-funded — ‘**Himachal Pradesh Power Sector Development Program**’. He informed that World Bank is financing 200 million USD for this program through the ‘**Program-For-Results (PforR)**’ financing instrument and listed out all the activities which are proposed to be taken up through various utilities of State Power Sector in Himachal Pradesh. He apprised that one of the major component under this program is evaluation of existing Environmental & Social norms and practices being adopted and implemented in the state power sector. The World Bank as analysed that critically and is shortly coming out with a comprehensive **Environment, Social System Assessments (ESSA)** report. As the report is under finalisation, GoHP in association with the World Bank has organised this consultation on ESSA so that valuable inputs and observations of all concerned Stakeholders are included in this report. He specifically clarified that today’s meeting is about ESSA only and participants were requested to confine themselves to the subject only.

Er. Deepak Jasrotia showed his gratitude to all the participants in the meeting from State Govt. Deptts., Power Developers, and senior subject specialists from the World Bank and especially from the Civil Society. This he stated would ensure healthy deliberation with concrete suggestions for inclusion in the report under finalization. He then shared the agenda of the meeting with participants and requested _____ World Bank to take forward the proceedings of the consultation meeting.

Shri _____ Sr. Environmental Specialist, World Bank explained in detail about the World Bank Funding Project and told that this Stakeholders consultation meeting is for Environment and Social Aspects of the Program for which Bank is working on different components with Power Sector utilities and analyzing what are the systems which are currently

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prevalent in the power sector related to the subject. He added that this program is basically on the Renewable Energy Development Program of Govt. of HP and is to be through the instrument of PforR *i.e.* Program for Results. Under this Program of Govt. of HP, World Bank will agree on certain Disbursement Link Indicators (DLIs) and if utilities achieve these DLI targets, funds would be released to the Govt. World Bank will first verify the activity and its related components then only disbursement will be done.

He specifically explained that World Bank systems are not to be followed in this program rather H.P. Govt. systems will be followed. However, the World Bank will try to see the gaps and come up with recommendations to Govt. which would be required to be implemented. Through this program every power utility of the state would be improving its system with new innovations to help Himachal Pradesh to be leading State in the power sector of the country.

He stated that Himachal Pradesh Government has recently notified its new Energy Policy, 2021 to devise new policy instruments for expeditious harnessing of Pumped Storage potential and Green Hydrogen Projects etc., and World Bank is supporting some of these aspects in this program. He further added that World Bank will assess the work done by various state power utilities on Environment and Social aspects and will find the gaps that need to be improved. He thanked Civil Society and Forum of the Hydro Power Producers and its members for attending this meeting who will come to know about this program in detail and their valuable inputs would be considered and suitably added.

Shri made a Power Point presentation and described that Renewable Energy has to play an important role in the country's Energy Transitions Agenda and India has set a target of 450 GW of Renewable Energy capacity additions by 2030. Moving in this direction with the penetration of solar and wind renewable sources in the grid, with their variable characteristics, has created and increased demand of grid balancing through hydro projects. He further stated that hydro-rich HP is important for achieving NDC targets as hydro used to be a great source of energy for firm power and peak power. Now with the introduction of solar and wind, it can be bundled together to enable the grid to be more stable and assets of hydro to improve their efficiency. There will be policy shift in the state and even nationally or regionally through value trading in Power markets and impact future design of hydro projects.

He added that World Bank is working on transmission, distribution, smart metering and bringing pilot projects on the bundling of hydropower. He stated that through there is no major investment in Hydro sector under this program, however, change or shift is being brought in the policy so that renewable energy is sufficiently utilised and passed on to the grid. There are



forward looking efforts by Himachal Pradesh in renewable energy sector, and this program of Renewable Energy Power Sector Development is an Umbrella program for the development of energy sector in HP.

He further briefed that this program is based on three pillars:-

- i. Promoting optimal utilization of power Sector Resources.
- ii. Promoting resource-efficient investments.
- iii. Strengthening institution capacities of various power utilities.

Further, he stated that PDI-Project Development Indicator of this program is to increase Renewable Energy capacity and reduction in GHG emission. }

Ms. **World Bank** explained the ESSA part which is related to Pillar-iii and told that PforR program objective is to strengthen the institution, and policy framework etc. World Bank has analysed the related laws, procedures, policies and how these policies have been implemented by the utilities. On this basis, gaps have been identified and discussed with the Govt. and its objective is to manage risks related to environment and social aspects and to resultantly improve its outcomes.

As told by her, the World Bank has done desk reviews of everything that is available in public domain and had studied data of each institution. Interactions have been done with the utilities regarding Stakeholders. List of Stakeholders in energy sector has been prepared and grabbed more information virtually due to pandemic and the idea for this consultation meeting is to share findings and also to gather additional information from Stakeholders through direct consultation. ESSA report would be finalized and after having the feedback of these meetings. This would be further disclosed on respective websites of GoHP. She further apprised that the World Bank has reached program appraisal stage now.

Further through Power Point Presentation Ms. detailed the following points :-

- i. ESSA core Principles.
- ii. Environment and Social Management.
- iii. Natural and Cultural Resources.
- iv. Public and worker safety.
- v. Land acquisition.
- vi. Indigenous people and vulnerable groups of women.



Ms. **World Bank** then stated that World Bank has analysed gaps in the policies and procedures implemented by different agencies in respect of Environment and Social aspects. She apprised that no high risk project and hydro power related project, which will cause major risk to biodiversity and environment, will be funded by the World Bank under this program. She added that Himachal is one of the front runners in environment management as far as the power sector is considered. In India, norms are generally project specific but in Himachal, basin-wise studies have been done which is notable and of great significance.

She further added that Himachal has implemented certain good practices like E-Flow notification and Catchment Area Treatment Plan. HP Pollution Control Board, Department of Science & Technology, Forest Department are monitoring the different aspects of environment. But the World Bank has noticed one gap that there are no regulations involved for the projects below 5 MW capacities. She further stated that it will be appreciated if during the course of consultation HP Pollution Control Board shares their suggestions for improving this system.

Further Ms.

World Bank presented Power Point Presentation on social assignment and briefed about the activity that will be taken up with respect to social aspect. Following key recommendations were highlighted: -

- i. Strengthening systems for monitoring compliance with labor laws, and monitoring of mitigation plans for community health and safety.
- ii. Improve institutional mechanism for disbursement and tracking of the LADF entitlements.
- iii. Develop system to enhance transparency in the mapping of Right of Way and purchase of land through established procedures.
- iv. Strengthen procedures to assess permanent and temporary impacts and provide appropriate mitigation measures and adopt at the institutional level through standardized ESMPs.
- v. Integrated reporting systems against clear indicators to be developed so that land management, adverse impacts and benefits sharing can be tracked.
- vi. Map existing E&S system and procedures across utilities to develop the integrated framework and to augment capacities.
- vii. Develop guidelines, procedures, and indicators to track performance on overall social risk management.



- viii. Cumulative impact assessment to review E&S risk management and outcomes across all projects
- ix. Develop utility-specific guidelines for screening and scoping of social risk at sub-project level
- x. Strengthen MIS-system for integrated state-level reporting system by all utilities on social risk management and mitigation.

Shri [redacted] **Himlok Jagriti Manch Kinnaur**, asked whether the representatives of **Himlok Jagriti Manch** are Stakeholders in this consultation meeting and requested clarity as on what status the NGOs have been invited for this meeting. He added that if they are considered as Stakeholders then they will present their views, otherwise it will not be fair on their part to express anything in this meeting.

Shri [redacted] then clarified that NGOs are definitely are Stakeholders and accordingly **Himlok Jagriti Manch Kinnaur** has also been invited for this Stakeholders meeting as the idea was not only to discuss with the Govt. Department but also with other departments/organisations, Civil Societies/NGOs/Forum of the Power Producers from where feedback can be obtained about gap analysis on ESSA. He requested Mr. [redacted] to kindly put in their valuable views/suggestions/observations on ESSA.

Shri [redacted] **Himlok Jagriti Manch Kinnaur** shared the memorandum regarding landslides, and process of land acquisition etc. and stated they have not seen of late any meeting being conducted by the World Bank with people and local bodies, civil society etc. at field level. On this [redacted] clarified that World Bank has not been able to conduct any such meetings due to pandemic and that's why these Stakeholders meetings have been organised.

Shri [redacted] further stated that in the PPT, the World Bank representatives talked about policies and laws like Environmental law but the things which are missing relate to Tribal Laws, FRA, Land Acquisition Act, 1968 etc. He further added that these are special laws for tribal area that prevail there over general laws and the World Bank talked about indigenous people but most of the Power projects are constructed in tribal area where indigenous people live. Nobody has done an extensive study about this and there is no consultation with local people. He further stated that he had attended all meetings in Jhakri, Pooh, Lipa related to CEIA study where questions were raised by them but these have not been taken up in recommendations. He further added that during the course of time when CEIA study was underway that it was inter-alia deliberated that no projects will come up in trans-Himalaya region. However, there is yet no clarity about this has and no knowledge has been shared as yet. He also stated that there is no



clarity in norms of riparian distance and there should be enough riparian distance between the projects.

He expressed his deep concerns about NOC being given to SJVNL by Natural & Cultural Resources Department on the aspect of no existence of historical/archaeological monuments but on the ground level there is Moorang Kila (Fort) which was probably constructed by Pandavas. This is about over 500 years old and this reality must have been looked into. He further stated that, Himlok Jagriti Manch praises the aspects being highlighted by the World Bank about gender equality and suggested that women participation should definitely be ensured.

He further added that LADF distribution is utilised almost perfectly but utilisation of CAT Plan is not clear and local bodies are not at all involved in this. There is no clarity that where and how Forest Department is utilising this money and how much plantations have been done. He stated that as the World Bank has clarified through their presentation that they will not be funding any project which will cause major risk to biodiversity and environment under this program. They hope and also request that no such other project in the area will be funded by the World Bank.

Representatives from Jangi Thopan affected area also thanked World Bank for clarifying that World Bank will not finance project in risky areas under this program. He further stated that they are already affected from 2 hydel projects— one is Kashang and other is Tidong (150 MW). He also stated that the Chilgoza trees which are only present in Kinnaur Distt. and are one of the major sources of income of tribal people. However, during the construction of the projects large number of trees have been felled in comparison to the number approved. He showed concerns that same may happen for the construction of the transmission line. He requested the World Bank and the Govt. to look at the ground reality for all the projects. He further stated that their efforts and struggle is not project specific but is in general for the tribal area, their individuality and distinct culture requested World Bank to pose these concerns to the Govt. through its report.

Shri , stated that he belongs to a village which is surrounded by 3 projects — Karcham-Wangtoo, Shongtong-Karcham and Baspa-II. They have submitted memoranda on social impacts due to the coming up of Shontong-Karcham HEP but till now project authorities have not replied and requested DoE to look into the matter. He also showed hid concerned about DMP which are made for Projects only but not for the surrounding residents and demanded that for DMP the local people must be made part of the exercise and taken into confidence. He stated



that though the authorities of the projects, from time to time, assure this but such DMPs have not been prepared wherein involvement of localities is ensured.

Shri thanked Himlok for their views and also ensured them that all their concerns have been well taken and the World Bank will try to solve these problems. He stated that through this program further improvements will be done. He stated that the impacts and suggestions given by have already been taken up in the report and informed that on Beas basin. The World Bank is going beyond that CEIA assessment; and hired a consultant from Colorado University for preparing TOR on gap analysis on CEIA study so that when another reformist program comes-up they would not only focus on Beas but across the complete State. The World Bank will try benchmarking of all hydro projects in HP, in regard to the level of operation, follow-up on norms, technical standards and social environment.

Mr. thanked Mr. for praising the World Bank for raising gender aspects and stated that the Govt. is positive and looking forward for gender studies and Environment Social policy, procedures amendments etc.

Ms. added that this program will support how Social impact Assessment can be made transparent. That's why the World Bank is talking about geo referencing, geo tagging, marking area, how many trees will be cut down etc. This system development will give more transparency in functioning. She further added that Govt. has agreed to move ahead in this to make whole system transparent. She also stated that in the process of screening and implementation, consultation is a mandatory condition and ESSA will also come in public domain and requested all to look into it and give feedback which will help them to further strengthen the system.

Dr. **Pr. Scientific officer, Department of Science & Technology, GoHP** stated that all the concerns raised by Stakeholders will be addressed and ensured that the Department of Environment Science & Technology and being member of Environment Impact Assessment Authority he will make note of the issues raised. He further asked Mr to submit the representation to Addl. Chief Secretary (Env.) GoHP of all the issues raised here. Accordingly, the appropriate action will be taken on this. He further stated that on the issue of trees felling beyond the approved number matter will be looked into deeply by the Department of Environment Science & Technology and stated further that not even a single tree will be allowed to cut down unnecessarily.



Mr. [redacted] assured the Stakeholders that all their concerns have been noted down and further requested DoE and HPPCL representatives to share the ready hand information as available with them on the issues raised by some Stakeholders.

Er. [redacted] **Dy Chief Engineer, Directorate of Energy** stated that its not right to say that no consultation have been conducted by Govt. in river basins. The fact is that during the course of CEIA Study about 30 consultation meetings were conducted from Basin level consultation meetings to block and Panchayat level and the process is still on. However, it is the fact that in the pandemic time this process remained stalled. He stated that for Satluj Basin only wide spread consultation meetings were taken and meetings were conducted at Shimla, Jhakri, Duttanagar, Neerath, Nichar, Nathpa, Tapri, Reckong Pco, Lippa, Pooh, Thangi, Moorang, Nako, Chango, Tabo, Tatapani-Sunni, Chindi, Hamoda, Kasol, Sundernagar (For clay area for Koldam). He further added that the recommendations and requests of the Stakeholders were considered and accordingly more basin level consultation meetings were taken up and as per request and recommendation full ICFRE (agency which conducted CEIA Satluj) scientists team along with senior scientist of all four partner institutes participated in these meetings to clear the doubts of the project area peoples. Two national level renowned social and environmental experts were engaged by GoHP as panel of environmental and social experts. Even the very senior scientist [redacted] participated in these meetings to clarify the quarries, questions and doubts of local people.

He further added that Hindi translation of the Executive Summary and Draft Report copies were even circulated to concern block/panchayat. On Trans Himalyan 'no-go-area' issue, as raised by one of participants, Mr. [redacted] stated that of course during the course of CEIA study consultation process these points were deliberated and accordingly ICFRE was asked to come out with full clarity on this in the final report as till then only draft/inception report was prepared. Er. [redacted] stated that all the recommendations /representations of Stakeholders as received were submitted to ICFRE and they have gone through those and accordingly considered as per their level of understanding and consideration. This was as a separate annexure to the study.

He apprised the participants that when the report was taken to EAC (Expert Appraisal Committee) of MoEF & CC, GoI, the EAC made a recommendation to consider the projects even bellow 10 MW and subsequent supplementary study was conducted by ICFRE. The report has now been approved by the MoEF & CC, GoI, but the approved copy of report is not with GoHP and GoHP has requested GoI for supplying the copy approved Study Report. However, as



per Executive Summary description & MOM of EAC, it is clear that at large there are specific recommendations for projects specific riparian distance, project specific e-flow and some of the 'No-go-area' has been mentioned and some projects have recommended for precluding. So saying this is not in the right spirit that recommendations/representation of Stakeholders has not been considered at all. However, more clarity will come when GoHP will have complete approved report.

On the point of DMP and inclusion of localities in the process of preparation and implementation of DMP in project areas, Er. Jasrotia stated that now Dam Safety Act, 2021 has been enforced and the area which Mr. highlighted houses projects with large Dams. So these project authorities are bound to implement the provision and procedures of this Act. Hence they will be required to update their DMPs in line with CWC guidelines and accordingly implement it in the project. He further apprised that as per Act there is a State Dam Safety Committee and State Dam Safety Organisation constituted by GoHP which would definitely look after such aspects and concerns of the people.

Er. Secretary General, HPPF requested World Bank to include International Hydro Association developed 'Hydropower Sustainability Assessment Protocol' in the program. He also stated that such sustainability protocol has chapters on Environment and Social issues and risks which is certainly related to ESSA also. He requested World Bank to consider implementing of these protocols under the program on pilot basis. Er. further stated that during CEIA study of Satluj & Chenab Basins, there was a special group called PESE (Penal of Environment & Social Experts) and requested the World Bank to consider including PESE recommendations in their report which would help to fill up the gaps as identified by the World Bank.

He added that Disaster Management & Climate Change is a very big and disturbing issue and these aspects are required to be studied in detail. He further stated that river modelling should be done in HP for all basins and through it the impact on the environment can be further studied.

Er. suggested that organizations under Power Department need to have uniformity in working with uniform procedures and processes and suggested that all these utilities must strive to get ISO Certification. He further requested to adopt the Draft Central Authority (Measures relating to Safety and Electric Supply) Regulations, 2022 document recently circulated by CEA for comments. On the point of CAT plan, Er. expressed that huge funds have been deposited under CAT Plan head by project developers with Forest Department, but

there is no clarity on the implementation of these plans. Project developers through their representative body like HPPF along with local people must be involved by Forest Department in the process of CAT plan implementation and also ensuring for transparency. He further suggested that all the organisations should consider that how to engage quality and experienced manpower for capacity building and this can be done only if organisations have specialists who can assist in implementing the various aspects of renewable power sector.

Shri stated that all the points raised by Er. () are there in discussion with the Govt. and the World Bank being a neutral organization wants better things to come into force. According to the need of the state, best practices will be chosen. He stated that the World Bank after consultation with Govt. is trying to bring IHA or other international best standards practices under the program. The World Bank will bench mark Hydro Projects based on Technical, environmental, Social and climate change angles so that the projects are monitored effectively and given ratings.

He further stated that World Bank is not committing anything on river modelling right now as it is in discussion with Govt. for a landscape model for a basin which may include Disaster Management and modelling parts.

Ms. further added the focus is on to have a uniform approach across all on Environment and Social aspects and specifically what systems are placed for monitoring which is enhancing accountability and transparency.

Ms. **AO (RR), HPPCL**, asked that how in the project vicinity outreach can be extended for consulting and who can be included in Stakeholders consultation meetings at project level and what should be the sphere of Stakeholders to be considered.

Ms. **replied to question raised by Ms.** that at project level most important Stakeholders will be project-affected people and under this program design, the consultation will be at some other level for the Stakeholders which are identified at the project level. This will be an identification exercise and 2nd step and what is important is their feedback. Their feedback must be incorporated in and utilities response to their feedback to complete the process.

Ms. **stated that World Bank's** assessment identifies that carrying out Stakeholders consultation at project level is needed but there must be a proper system for Stakeholders mapping. She stated that before Stakeholders consultation engagement,



Stakeholders mapping must be done and grievances irrespective of nature major or minor should be documented.

Shri stated that under this project World Bank will make system procedure that will help utilities how to conduct Stakeholders meetings. The World Bank has done gap assessment on social system procedures and documented procedure will outline regarding procedure for Stakeholders Meetings. About complaints raised, if utilities are competent in the matter should resolved those, otherwise it should be well documented.

Ms requested HP Pollution Board to suggest something for improvement in the system for compliance report management.

On this Dr. Chief Engineer (Env.) HPPCB replied that remedial actions are taken against any complaint which is received. Projects which are above 25 MW, detailed Environment Mitigation Plan have been prepared and HPPCB continuously monitors and where ever there is any violation, actions are being taken accordingly; and these are all available in web system. Further, there is E-Samadhan portal and HPPCB is working round-the-clock and on receipt of any complaint immediate action is being taken up.

At last, **Er. AGM, HPPCL** thanked all participants for actively associating in this meeting and to be the part of it. He stated that many issues as raised have already been taken up in ESSA which were discussed in totality again, but there is still scope for improvement. He stated that there exists wide scope of work to be done on grievance redressing system; and the concerned departments and utilities along with developers are working on it. Er. Justa added that with the World Bank interventions through this program, definitely there will be improvement in existing systems and World's best practices and technologies will be introduced in state power sector.

Accordingly the meeting ended with vote of thanks to and from the chair.



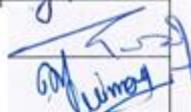
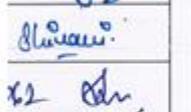
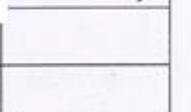
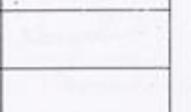
Er.
Dy. Chief Engineer,
Directorate of Energy,
GoHP, Shimla-09

LIST OF PARTICIPANTS PRESENT IN THE MEETING HELD ON 5th July, 2022 AT HOTEL PETERHOF, SHIMLA REGARDING 2nd STAKEHOLDER CONSULTATION MEETING FOR "HIMACHAL PRADESH POWER SECTOR DEVELOPMENT PROGRAM"

Sr. No.	Name & Designation	Department	Email ID	Phone No.	Sign.
1	Sanjay Kumar SE (Elec)	HPPWD			
2	Devika Bahadur Social Consultant	World Bank			
3	NANDINI CHOUDHURY ENV. SAFEGUARD CONSULTANT	World Bank			
4	Pratap Thakur Chief Engineer	HPSLDC			
5	Vijay Thakur GM (P)	HPPTCL			
6	Deepak Aggarwal SE (JSV)	JSV			
7	Dr. R.K. Nanda Chief Engineer Env.	Pollution Control Board			
8	Ar. Navin Sharma Chief Tech. HPPWD.	HPPWD.			
9	Lukesh Kumar Chief Engineer (P)	HPSEB			
10	Pooja DARGA SENIOR ENV. SPC.	THE WORLD BANK			
11	Deepak Jaiswal Dy. Chief Engineer	DOE			
12	Ajay Kumar Jais AGM CP	HPCL			
13	Desh Raj, SE(E)	HPSLDC			
14	K.S. Thakur CE (Env)	DOE			
15	Nitin Garg, GM (C)	HPCL			
16	P.R. Unnikrishnan	DOE			
17	C.M. WALIA	Forum of Hydro Producers			
18	Jai Goswami	IA Hydro Energy SB Power			
19	Vijay Gupta	Labour + Emp Shinda			

Sr.No.	Name & Designation	Department
20	Rahul K. Sharma	Labour & Emp. Deptt
21		
22	N. Kumar G. (MCA)	NTDC
23	Bhagat Singh Kumar	HIM LOK Jaqzili Mandi
24	Jiyalal Negi	Kinnaur
25	Paramashwar Singh Negi	AIM LOK JAGRIY MANCH KAIR
26	Sanjeev Gautam	P. Director HIMVERDA
27	Dr. Vineet Sood	Project Manager
28	Budha Sain Negi	Active Member (No. MEA/21/2017)
29	Dinahi Negi	Active Member (No. MEA/21/2017)
30	Somya Negi	Active member (No. MEA/21/2017)
31	TOWAN Negi	Active member (No. MEA/21/2017)
32	Pranshu Dogra	ISJVN
33	Ankush Sharma	HPSEDC
34	Dhruv Kumar (S.E.E)	DOE
35	Deepak Kumar Asst Programmer	DOE
36	Ajay Singh Negi (JOP-I.T)	DOE/Himachal
37	Uridhula Singh	World bank
38	Dr. Vineet Sharma	HPSEBL (Assistant En.)
39	Dr. Adarsh Bhatia	ISV Asst. Engr.
40	Nishi Bhatti	HPCL Sr. Manager (HR)
41	Anita Gupta	HPCL AO (RR)
42	Samwati Babbar	HPCL AO (RR)

Sign

Sl. No.	Name & Designation	Department	E-mail ID	Phone No	Sign
43	Sanjeev Kumar Environmental Engg	HPPTCL			
44	DISHISH KUMAR ASSISTANT ENGINEER (E)	HPPTCL			
45	Shivani Kaur	DOE			
46	Dr. Anurag P. Singh	DEBT			
47					
48					
49					
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Photographs from the Shimla Consultation (July 5, 2022)



Dharamsala, May 20, 2022

Proceedings of the Environment, Social System Assessments (ESSA) Stakeholder Consultation Meeting w.r.t. upcoming World Bank Program (Himachal Pradesh Power Sector Development Program) was held on dated 20th May, 2022.

A meeting with regard to Environment, Social System Assessments (ESSA) Stakeholder Consultation was held at Hotel Dhualadhar, Dharamshala, Distt. Kangra, H.P. on dated 20.05.2022 w.r.t. World Bank funded Program "Himachal Pradesh Power Sector Development Program".

The list of Participant as per Annexure-A.

At the outset Er. _____, Directorate of Energy welcomed all the participants present in the meeting and briefed about the agenda of the stakeholder meeting as well as about the World Bank-funded Program "Himachal Pradesh Power Sector Development Program". He further stated that World Bank is financing 200 million USD for this program through the Program-For-Results (PforR) financing instrument and listed all utilities of Power Sector which are under this program. He also briefed about activities to be taken up under the program and then requested _____ World Bank to further take on the proceedings of consultation meeting.

Shri _____ explained about the WB Funding Project and stated that this Stakeholder consultation meeting will be around the Environment, Social Aspects of Program. He narrated that as Himachal Pradesh is leading in Power sector and steps taken by govt. of HP is one of the best in India and some of the initiatives taken by Govt. of HP in new Energy Policy are one of the best and can be compared to International Level especially in the case of Green Hydrogen initiative and bundling of Hydropower.

Shri _____ presented a PowerPoint presentation and narrated that Renewable Energy has to play an important role in the country's Energy Transitions Agenda and India has set a target of 450 GW of Renewable Energy by 2030. Moving in this direction with the introduction of solar and wind the variable nature has increased. He further stated that hydro-rich HP is important for achieving NDC targets. Hydro used to be a great source of energy for firm power and peak power, now with the introduction of solar and wind, it can be bundled

together so that the grid become more stable and assets of hydro improve their efficiency. Keeping these aspects in mind WB has agreed to this program which is in the process for the past one and half years and various meetings were held to put this program in shape, as it is an umbrella program bringing all power agencies of State together. The instrument used in this program is PforR and overall performance based incentives will be disbursed after achieving certain targets. He further stated that this program is based on three pillars:-

- i. Promoting optimal utilization of power Sector Resources.
- ii. Promoting resource efficient investments.
- iii. Strengthening institution capacities of various power utilities.

Also, a pilot on bundling Hydro with Solar and Wind is taken up under this program and for efficiency based power system. Further, Digitalization, Automation, and integration between all power utilities have been proposed. Under strengthening governance capacity, matters relating to Environment, Social System Assessments (ESSA) are taken up under this program.

During the deliberation Er. Secretary General, HPPF stated that in projects the major hindrance is about dealing with people and if social assessments are not dealt properly then things get stuck and this has happened in the hydro project in a big way in past decade, that's why all Private Sector players are surrendering the projects. He further stated that WB is also aware of the fact that the hydro sustainability assessment protocol is very important and in the E&S issue management is one of the chapters in this protocol which properly should be adopted. He added that this aspect is notified in the Swaran Jayanti Policy, 2021 which needs to be brought out on the ground now.

Shri while replying to Er. stated that PforR program follows all Govt. norms especially those related to Environment, Social System Assessments (ESSA) and under this program a gap assessment on current CEIA is done on Beas Basin by Professor based on that WB will work with HPPCL and DoE. Once the ToR is finalized the study will be taken up and the report will be submitted to GoHP thereafter recommendations will be implemented under this program. He further stated that key points stated by Er. are positively taken and WB will take advice from HPPF once ToR is ready.

Dr. **HIMCOSTE** stated that sustainability is being discussed at the different platforms but one thing which is missing is that in the current phase there will be threats to a hydro sector from aspect like climatic variation, which is going to impact the glaciers, snow cover and climate induced hazards, which will be growing in coming days in the Himalayan region. These things need to be linked to the program. When talking about sustainability, he further explained that one of the findings of the study done on how the snow cover area has been changed in Himachal Pradesh, he presented data of last years (Oct-21 to Apr-22) which was taken from satellite data, wherein it is found that there was the immense area under snow cover in Oct 2021 but in winters when peak snowfall is expected in HP the snow cover was found depleted. The snow which HP is getting in February is not going to sustain for a longer period as the water content is more and it melts very fast, result is that in March and April 22-27% of the area was vacated from snow covers as compared with last year (2021) it was only 4%. Also, this year snow cover has depleted more than 20% in each basin Himalayas are getting a higher temperature which ultimately will affect discharge dependability of major structures to come up in Chenab, Beas & Satluj Basins. These things are to be integrated into the program if we want sustainable approach for the power sector as a whole for the future generation. Another thing in climate based hazards while working on Satluj Basin is found that smaller lakes are coming more in the basin due to climatic changes. Glacier melting in upper catchment can't be assessed out by conventional methods, so he emphasized it can be integrated with all WB program so that things are visualized in much more advance as far as sustainability of the program is concerned.

Shri replying to **Dr.** stated that during the CEIA study on sustainability WB team will interact with Science & Technology Deptt. on issues like reduction and sudden increase in discharge and other aspects and further more he stated that HIMCOSTE, HPPCB, HPPF will play a key role in it.

Er. **AGM, HPPCL** apprised that mitigations part & safety are already been taken up under this program and on the prevention level due to limited resource much has not been done but moving from fossil fuel toward renewable energy is steps toward in this direction and Integration of solar & hydro for longer run will be helpful.

Dr. further stated that as reported by SJVNL in Satluj Basin large amount of silt has come from the China side and lot of erosion is seen in the upper catchment of the Satluj Basin which is mainly due to wind erosion. He further emphasized on managing this aspect at the planning level.

Er. advised that multiscale modelling and mapping of landslides in this region with satellite data and model study can help. Further adding to it there is another area for the engineers who are handling projects is to focus on assessing hazards and exposure of rainfall landslides using modelling, monitoring and mapping techniques that primarily rely on remotely access information to understand the forecast on the landslides. This is also required to be introduced in the State of H.P.

Shri welcomed all the advice and stated key points are taken well into consideration & there is a certain budget kept for research and study under this program probably those studies can be taken up during the course of time.

Shri **Manager (Environment), HPPCL** suggested that to deal with these climatic hazards like landslides and other soil bioengineering can be used. Already Himachal has done lot in this aspect and this could be a good platform for bringing it up further.

Er. **Director, HPPTCL** complimented **Er.** statement and stated that the need of hour is to work for creating more friendly environment for development of HEPs in the State.

Er. stated that CEIA studies were done in HP now question is how to implement that on ground. He stated that in October, 2018 in Chief Minister enclave, one recommendation was put forward which Quoted as below:

"Effective communication strategic protocol/document for hydropower development would need to develop and to address all those areas which affect stakeholder with development of the project through effective communication".

He further stated that HP hydro history starts from Chabba Power House, Shanan HEP and Bhuri Singh Power House and these powerhouses are still functioning. He further suggested that projects commissioned before 1990, a study should be conducted regarding E&S

aspects as there is economic improvement in the vicinity of these projects. So projects before 1990 are a good matter of study like Shanan, Bassi, Giri, Bhabha, Gaj, Banair, Bhakra, Pong etc. as their life cycle is near completion. This is very good for case study to show up the people that hydro is not the disaster and these examples are there and WB should come up for such study.

M **World Bank** stated that in PforR financing World Bank has to assess concerned utilities E&S policy in terms of monitoring & implementation based on that WB has found some gaps based on data shared from concerned utilities. After analysing this WB has prepared its own checklist. All utilities have provided very valuable information and WB will share the draft ESSA document with utilities for review, soon. As per the project process after program preparation, the appraisal is done. This is 1st stakeholder meeting. Once it is final it will be disclosed to the general public on what are gaps and what are recommendations this will be done in between appraisal & negotiation.

Further through Power Point Presentation by _____, following points detailed out:

- iv. ESSA core Principles.
- v. Environment and Social Management.
- vi. Natural and Cultural Resources.
- vii. Public and worker safety.
- viii. Land acquisition.
- ix. Indigenous people and vulnerable groups of women.

Shri _____ further explained that under E&S World Bank has prepared ESSA. Every utility has its own E&S policies with different requirements. On the environmental side, World Bank under this program wants to strengthen regulation & policy procedures and put them in documented shape and ensure that all these utilities will follow those recommendations. Under this program Development of road map, for basin-wide study how this sustainability can be brought in clearing all aspects of vulnerable landslide glacier, sediment part that will be taken during the course of the project. The process of basin impact whether it is Biodiversity, benefit-sharing will be taken care of during the course of the program and GoHP will take this forward as World Bank already had interaction with International Hydro Association (IHA) and will try



to bring IHA recommendations to one of the institutions in NIT-Hamirpur or IIT- Mandi and accordingly regular training of utilities will be carried out.

Shri District Revenue officer stated that there are two key points which need to be addressed with regard to E&S aspect. Firstly, employment in respect of Hydro Project always has been a very big issue and employing 70% local people as per regulations are not implemented. Secondly, regarding land acquisition, the assessment that is being done for land/structure previously was not in line with the actual cost of those found. That's why there are lot of local resistance against power projects.

He further added that for Land compensation, its accurate evaluation and its inclusion in the DPR of HEPs is not taken up properly which increases the project cost later and tariff as well. Hence its accurate evaluation and pre inclusion in the DPR should be taken up so that project costs do not escalate invariably at later stage and accordingly the compensation be paid to all concerned.

The WB representative stated that this aspect is taken care off in new Land Act. Further HPPCL representative also stated that now this practice is being adopted.

Further Ms.

World Bank presented Power Point Presentation on social assignment and briefed about the activity that will be taken up with respect to social aspect. Following key recommendations were highlighted: -

- i. Strengthen systems for monitoring compliance with labor laws, and monitoring of mitigation plans for community health and safety.
- ii. Improve institutional mechanism for disbursement and tracking of the LADF entitlements.
- iii. Develop system to enhance transparency in the mapping of Right of Way and purchase of land through established procedures.
- iv. Strengthen procedures to assess permanent and temporary impacts and provide appropriate mitigation measures and adopt at the institutional level through standardized ESMPs.

- v. Integrated reporting systems against clear indicators to be developed so land management, adverse impacts and benefits sharing can be tracked.
- vi. Map Existing E& S system and procedures across utilities to develop the integrated framework and augment capacities.
- vii. Develop guidelines, procedures, and indicators to track performance on overall social risk management.
- viii. Cumulative impact assessment to review E&S risk management and outcomes across all projects
- ix. Develop utility-specific guidelines for screening and scoping of social risk at sub-project level
- x. Strengthen MIS-system for integrated state-level reporting system by all utilities on social risk management and mitigation.

Mr. _____ narrated that once entities align with the law under section 108 of R&R it gives the power to prepare state level R&R policies for power sector so it becomes legally a binding, giving an example of Kerala and Rajasthan where this kind of policies have been amended.

Mr. _____ stated that when exceptional work is done it should be show cased to public. In 2006 first hydro policy was launched by GoHP and after 15-year 2nd hydro policy come up which looked after the gap of the previous policy. He emphasized to carry following studies:-

- i. In CAT plan more than Rs. 1200cr. has been funded by different agencies so a compendium should be made on the facts that what has been achieved in last 15 years, and how much forest cover has increased or decreased.
- ii. CSR (Corporate Social Responsibility)- All power sector utilities have worked intensely on E&S aspects which is not getting reflected/appreciated rather is being criticized. A compendium should come out showing that how much amount has been spent and these many works are being done with respect to social aspects.

He further added that when after 10-year new policy will come these reports can be taken up as baseline and suggested to take up these in this program. Mr. _____ stated that it

would be fruitful if government undertake such studies and prepare a report along with association of HPPF & other agencies.

Er. Director, HPPTCL agreed with the suggestion made by **Er.** and requested the Directorate of Energy to keep some budget for these studies under this program.

On this **Er. Chief Engineer (Energy)** stated that if under ESSA such studies are recommend to be taken up with budget provision by WB and same is agreed and approved by authorities, these will be accordingly taken up by DoE.

Shri. stated that under the studies these aspects can be included and reviving of HPPF is also need of hours.

At last, **Er. Dy. Chief Engineer, DoE** stated that this was the first meeting in the series and second meeting in this regard will be scheduled next month at Shimla. He emphasised that such meetings always brings transparency and the ideas & thought are shared which actually boost and increase the quality of tasks to be taken up. As such all suggestions and observation quoted by different speakers will definitely be helpful in better shaping of this ESSA document of WB program.

He then thanked all participants for actively associating in this meeting and to be the part of it.

Accordingly the meeting ended with vote of thanks.


Er.
Dy. Chief Engineer,
Directorate of Energy,
GoHP, Shimla-09



LIST OF PARTICIPANTS PRESENT IN THE MEETING HELD ON 20TH MAY 2022 AT HPTDC HOTEL DHAULADHAR AT DHARAMSHALA REGARDING STAKEHOLDERS' CONSULTATION MEETING FOR "HIMACHAL PRADESH RENEWABLE POWER SECTOR DEVELOPMENT PROGRAM"

Sr. No.	Name & Designation	Department	Email ID	Phone No.	Sign.
1.	ASHISH KUMAR ASSISTANT ENGINEER	HPPTCL			
2.	Sanjeev Kumar Environmental Consultant	HPPTCL			
3.	En Sanjay Ranotkar	HPSHDC			
4.	Ajay Kumar Jais B.Sc.	HPPTCL			
5.	Madhu Singh	World Bank			
6.	DEVKA SAHADUR	World Bank			
7.	Pooja Doga	World Bank			
8.	En. Vishal Sharma Manager (Construction)	HPPTCL			
9.	E. C. M. WALIA	HPPF.			
10.	En. Lakshmi Kumar	HPSEB			
11.	En. Vinod Sharma	HPSEB			
12.	Rajiv Sood Director (R&D)	HPPTCL			
13.	Kapil Kumar, P.O.	Himurja			
14.	Dr. L. L. Kaulhawa Dr. Chandra Shekhar	HIMURJA Rheuma			
15.	En. Vinod Sood Project Mgr. (Solar)	HIMURJA			
16.	En. Gopal. JE	HIMURJA			
17.	Deepak Jaiswal	Op. C. & D&S			
18.	En B R Mehta	DOE shale			
19.	En. Manoj Kumar	DOE			

LIST OF PARTICIPANTS PRESENT IN THE MEETING HELD ON 20TH MAY 2022 AT HPTDC HOTEL DHAULADHAR AT DHARAMSHALA REGARDING STAKEHOLDERS' CONSULTATION MEETING FOR "HIMACHAL PRADESH RENEWABLE POWER SECTOR DEVELOPMENT PROGRAM"

Sr. No.	Name & Designation	Department	Sign.
20.	Arun Kumar	Lab. Secy & Insp.	
21.	Narain Kumar	Lab. In-charge	
22.	Kuldeep Kumar	Lab. In-charge	
23.	Ar. Lal Kataria	Local	
24.	G. Raju Sood	Director	
25.	Ex. K.S. Thakur	HPPTC	
26.	Ex. K.S. Thakur	C.E. (Energy)	
27.	Ex. Robin Kumar	DDMA Kangra	
28.	Bhanu Sharma	DDMA Kangra	
28.	Sanjay Kumar	DDO Kangra	
29.	Banshi Kumar	DDO Kangra	
30.	Dr. R.K. Nadda	HPSP CB sec	
31.	Ex. Narain Gupta	Shikharshala	
32.	Ex. Ashish Singh	DOE	
33.	ANKUSH	HPPF	
34.	Hemant Sharma	DOE	
35.	Alal Kumar	HPTCL	
36.	Rakamand	HTM&JTH	
37.	Suresh Kumar	HPPTC	
38.	AVTAR SINGH	NPS/EB	

Annex 2: Project cycle and social safeguards followed by HPPTCL

Project Activity	Potential Impact	Mitigation Action	Parameters to be Monitored	Standards/ Measurement/ Frequency	Institutional Responsibility	Implementation Schedule
PRE-CONSTRUCTION						
Involuntary resettlement or land acquisition	Loss of lands & structures	Compensation paid for temporary/ permanent loss of productive land	Public complaints	Rates paid as per the Resettlement plan/Framework for the project – Once	HPPTCL - ESC	Prior to construction phase
Encroachment into farmland	Loss of agricultural productivity	Avoid siting towers on farmland/orchards wherever possible	Tower location & transmission line alignment selection. Statutory approvals for tree trimming /removal from Horticulture department	Consultation with local authorities & design engineers - Once	HPPTCL - ESC	Part of detailed alignment survey & design
Location & design of Substation	Disturbance to adjacent lands & the people due to cut & fill operations	Maintain adequate ⁵⁹ clearance, construction of retaining structures, minimise cut & fill operations adjoining the dwellings	Transformers & specifications & compliance with setback distances (“as-built” diagrams)	Technical specification- Once Measure setback distances to nearest house structures – Once	HPPTCL	Detailed design
Location of transmission towers & transmission line alignment & design	Exposure to Electromagnetic Fields (EMF) & other safety related risks	Setback of dwellings to overhead line route designed in accordance with Indian Electricity Act (Rule 77 & 80) for each permitted level of power frequency & its proper supervision at each tower site.	Tower location & transmission line alignment selection with respect to nearest dwellings – Once	Setback distances to nearest houses, clearance of conductor from ground – Once	HPPTCL	Part of tower siting survey & detailed alignment survey & design
Explosions/Fire	Hazards to life	Design of substations to include fire control systems/firewalls. Provision of firefighting equipment to be located close to transformers, switchgear	Substation design compliance with fire prevention & control codes	Tender document to mention detailed specifications – Once	HPPTCL	Part of detailed substation layout & design /drawings
CONSTRUCTION PHASE						
Construction schedules for substation	Noise nuisance to neighbouring properties	Minimize construction activities undertaken during the night & local communities informed of the construction schedule.	Timing of construction (noise emissions, dBA)	Construction as per Scheduled timings only	HPPTCL, Contractor (provisions)	Construction period
Acquisition of cultivable lands	Loss of agricultural productivity	Avoid fanning/harvesting season for field crops wherever possible for the project activities. Ensure existing irrigation facilities are maintained in working condition. Protect /preserve topsoil & reinstate after construction is completed. Repair /reinstate damaged bunds etc. after construction.	Land area of agriculture loss. Usage of existing utilities. Status of facilities (earthwork in m3) Implementation of crop compensation (amount paid, dates, etc.)	Loss of crops-work in post-harvest period but before next crop – Once per site	HPPTCL, Contractor (provisions)	Throughout construction period

⁵⁹According to Central Electricity Authority (Safety Requirements for Operation, Construction & Maintenance of Electric Plants & Electrical Lines) Regulations 2008

Temporary use of land	Losses to neighbouring land uses/ values	Contract clauses specifying careful construction practices. As much as possible existing access ways will be used. Productive land will be reinstated following completion of construction. Compensation will be paid for loss of production, if any.	Contract clauses Design basis & layout. Reinstatement of land status (area affected, m2). Implementation of Tree/Crop compensation (amount paid).	Incorporating good construction management, design engineering practices - Once. Consultation with affected parties immediately after completion of construction & after the first harvest – Once.	HPPTCL, Contractor (provisions under supervision of HPPTCL)	Construction period
In case of chance find of cultural artifacts & property/archaeological features	Loss/theft of precious archaeological item uncovered in digging at sites.	In case of chance find of cultural artifacts & property/archaeological features	Chance finds	GOI's Treasure & Trove Act. - Continuous	HPPTCL, Contractor (provisions under supervision of HPPTCL)	Construction period
Transportation & storage of materials	Nuisance to the public	Transport loading & unloading of construction materials should no cause nuisance to the people by way of noise, vibration & dust. Avoid storage of construction materials beside the road, around water bodies, residential or public sensitive locations. Construction materials should be stored in covered areas to ensure protection from dust, emissions & such materials should be bundled in environment friendly & nuisance free manner	Water & Air Quality	CPCB Emission standards & Water Quality standards - Half yearly	HPPTCL, Contractor (provisions under supervision of HPPTCL)	Construction period
Temporary outage of the electricity	Loss of power supply to the local community when distribution lines crossing the new transmission line are switched off	Advance notice to the public about the time & the duration of the utility disruption Restore the utilities immediately to overcome public inconvenience	Disruption of power supply to houses & commercial premises.	Regular monitoring during the period of construction - At each public complaint.	HPPTCL, Contractor (provisions under supervision of HPPTCL)	Throughout the construction period

Health & safety	Injury & sickness of workers & members of the public. Contamination & Spreading of Novel Covid-19.	Contract provisions specifying minimum requirements for construction camps Contractor to prepare & implement a health & safety plan & provide workers with required PPE & health & safety measures. Contractor to prepare Emergency Response Plan. Availability of ambulance or medical facility at work site both for workers and public should be kept by contractor. Contractor to arrange for health & safety awareness programmes including on AIDS & sexually transmitted diseases (STD). To comply with HPPTCL's Health & Safety plan in response to Covid-19, pandemic.	Contract clauses (number of incidents & total lost-work days caused by injuries & sickness) Contract Clauses Contract Clauses HPPTCL's Health & Safety Plan & guidelines as laid by the govt time to time.	HPPTCL & ADB Health & safety standards - Monthly National Disaster Management Half Yearly Regular	HPPTCL, Contractor (Provisions under supervision of HPPTCL)	Construction period
Capacity Building	Improve standards of implementation & monitoring	Training of HPPTCL staff	Training schedules	Number of training program - Yearly	HPPTCL- ESC	Construction period
OPERATION PHASE						
Maintenance of Transmission line	Exposure to electromagnetic interference	Transmission line design to comply with the limits of electromagnetic interference from overhead power lines	Required ground clearance (metres).	EHS Exposure on EMF – Annual	HPPTCL	Throughout the operations
Substation maintenance	Exposure to electromagnetic interference	Substation design to comply with the limits of electromagnetic interference within floor area	Required noise vibrations levels	Technical specifications – on public complaint	HPPTCL	Throughout the operations
Noise generation	Nuisance to the community around the site	Provision of noise barriers near substation sites if needed during operations	Noise level	Noise level (dB)- Once a year	HPPTCL	Throughout the operations
Electric shock	Death or injury to the workers & public	Security fences around substation Establishment of warning signs Careful design using appropriate technologies to minimise hazards inside substation & awareness raising programmes	Proper maintenance of fences & sign boards Usage of appropriate earthing/instrumentation (lost workdays due to illness & injuries)	Periodic maintenance Number of programmes & percent of staff/ workers covered	HPPTCL	Throughout the operations
Training for Electric safety	Raising awareness for electrical safety measures	Training of HPPTCL personnel.	Training schedules	Number of training program - Yearly	HPPTCL-ESC	Operations

Annex 3: Project Screening Format for Land requirement (HPPTCL)

Sr. No	Description	Route no. 1	Route no. 2	Route no. 3
1	Approximate line length in Km			
2	River/Nalla Crossing			
3	Government/Forest area involvement			
	i) Nos. of towers			
	ii) Approximate Length (in Km)			
	iii) ROW Approximate Length (in Km)			
4	Non- Forest/Pvt area (in Hectares)			
	i) Nos. of towers			
	ii) Approximate Length (in Km)			
	iii) ROW Approximate area (in hectares)			
	iv) Wild Life sanctuary/National Park (in Ha.)			
	v) Approximate distance from nearest wild life sanctuary			
5	Development of Tower site			
	Number of Towers			
	Number of Gantries			
	Land to be acquired for Tower base (in Ha.)			
6	Road accessibility in Km (average lead from road to proposed line Route.)			
7	i) Agricultural (in Ha.)			
	Cultivated			
	a. Irrigated			
	b. Non-irrigated			
	ii) Un Cultivated			
	iii) House Or Building			
	a. Residential			
	b. Non-Residential			
8	Approximate EHV Line Crossing no.			
9	H T/ 11kV Line Crossing Approximate Nos.			
10	Road Crossing in approximate Nos.			
11	National/State crossing in Approximate Nos.			
12	Telephone Line crossing in Approximate Nos.			
13	Length of Route/Line passing in the territory of other state			

Sr. No	Description	Route no. 1	Route no. 2	Route no. 3
14	Approximate Nos. of Trees in Forest land cutting			
	Non cutting			
15	Approximate Nos. of Private Trees in the route			
	i) Fruit Trees			
	Cutting Non-Cutting			
	ii) Non-Fruit Trees			
	Cutting Non-Cutting			
16	Approximate Length of line route in snow zone area (in Km) Nos. of Towers			
17	Approximate Length of line route in non-snow zone area (in Km) Nos. of Towers			
18	Approximate Length of line route in cultivated area (in Km) Nos. of Towers			
29	Approximate Length of line route in Un-cultivated area (in Km) Nos. of Towers			
20	Highest Approximate altitude in route the line (in Meters)			
21	Approximate distance from Nearest Airport			
22	Approximate distance from the Nearest Religious/archaeological sites			
23	Name of District			
24	Land to be Permanently acquired for revetment of tower base:			
a)	Area (in Ha.) Cost			
Alternative Selected				

Addressing Information and Participation Deficit – Communication Tasks

Stage of the Project/Activity	Recommendations/Communication Tasks	Process/Institution	Responsibility for task/ monitoring
After MoU/Allotment/Feasibility Report Environment impact/social survey/ technical studies.	Consultation with affected people <ul style="list-style-type: none"> • At least one open meeting at Panchayat/ village level by consultants. • Project public consultation and public feedback through open meetings on project proposals – capacity, alignment, location of major components, social and ecological impact. • Option Assessment/exploring alternatives. 	<ul style="list-style-type: none"> • Information to be provided on internet/meetings. • Joint meetings – with all villages directly/indirectly affected (by project/reservoir, tunnel, power house etc.). • Record of meetings on website. 	<ul style="list-style-type: none"> • Task- Project management. • Monitoring: District Communication/ Counseling Unit (DCCU).
Public Hearings in all projects, irrespective of size/number dislocated.	Information to affected public <i>Details in simple format/language to be provided by project – in advance.</i> <ul style="list-style-type: none"> • Specific information <ul style="list-style-type: none"> (i) government/private lands/forests affected. (ii) villages/families/ households - likely to be affected. • Reservoir elevation/ power house/ tunnel - alignment, location. • Copies/salient features of environment/social impact survey reports. 	<ul style="list-style-type: none"> • Public hearings/open meetings with all affected villages. • Advance notice of meeting. • Information in local language/simple format – to be circulated. • Information to be provided on website. 	<ul style="list-style-type: none"> • Task – project management. • Monitoring – District Communication & Counseling Unit (DCCU).
Gram Sabha NOC (required under HP Policy)	Information <ul style="list-style-type: none"> • Providing advance information (see above). Control & Monitoring <ul style="list-style-type: none"> • To be convened by District Administration/ DCCU. 	<ul style="list-style-type: none"> • Gram Sabha single agenda meetings convened specifically for NOC. 	<ul style="list-style-type: none"> • Task: DCCU.
After implementation Agreement			

<p>Social & Ecological Impact/ Mitigation</p> <p>(a) R&R – R&R compensation, progress, grievances.</p> <p>(b) Assessment/compensation for emerging demands (e.g. tunnel damage).</p> <p>(c) Compliance by the project with environment conditionalities and related complaints/problems.</p>	<p>Information</p> <ul style="list-style-type: none"> • Information by project on social/ecological obligations/conditions. <p>Feedback & Response</p> <ul style="list-style-type: none"> • Addressing R&R grievances, emerging damage (e.g. land slides). <p>Monitoring & Reporting</p> <ul style="list-style-type: none"> • Report on compliance of social and ecological obligations and conditions. • Resettlement progress/problems. 	<p>LADC/similar project level committees - Annual review of social & ecological aspects.</p> <p>Resettlement Committee including PAF representatives.</p>	<p><input type="checkbox"/>Task – DCCU.</p>
After Commissioning			
<p>Residual problem handling – ecology etc. – (non technical/non financial issues), community benefit sharing scheme – funds and expenditure.</p>	<p>Information & Monitoring</p> <ul style="list-style-type: none"> <input type="checkbox"/>Information on outcomes/status. Annual Reports & Review. 	<p><input type="checkbox"/>LADC/appropriate project committees.</p>	<p><input type="checkbox"/>Task: DCCU.</p>
<p>All stages of the project</p>	<p>Information on</p> <ul style="list-style-type: none"> • Copy user friendly summary of EIA and SIA reports – local language. • Minutes of public meetings. • Details of affected families. • Grievances/action taken. • Status of employment cases. 	<p><input type="checkbox"/>Project website</p>	<p><input type="checkbox"/>Monitoring by DCCU.</p>

HP Hydro Power Development: Core Messages/Signals

Target Stakeholder/Audience	Concerns	Messages/Signals	Process/Medium/Institution
Local/affected/unaffected populations/NGOs	☒Government ignores socio ecological concerns and is bothered only about revenues.	<p>Government cares for the PAF and believes in fair play</p> <ul style="list-style-type: none"> • Government priority is avoiding social dislocation and not optimization of project capacity, subject to techno economic viability (Present message: capacity is sacrosanct). • Dislocation only where project otherwise not viable. 	<ul style="list-style-type: none"> • Mass media. • Use of Himachal Diary (DD). • Use of Phone in Janvani programme AIR. • Local meetings/government public interaction in affected districts. • Printed Informative Brochures/ Calendars distributed locally.
Local/affected/unaffected populations/NGOs	☒Government and projects forget about socio and ecological obligations, once NOC obtained.	☒ Government will ensure compliance of project obligations – during and after commissioning.	☒Disseminate information through project websites (regarding Annual Reviews/Reports). Table-I.
Dislocated communities	☒Credibility of resettlement process.	☒ Dislocation may be involuntary but resettlement will be participatory.	<ul style="list-style-type: none"> • Demonstrate viability of relocation sites etc. (arrange visits) rather than make promises people don't believe. • Inclusive Resettlement Committee irrespective of (number of) families dislocated.
Affected populations/NGOs	☒Anxiety about uncertain future aggravated by perception of failure of past projects.	<p>Focus on</p> <ul style="list-style-type: none"> • Gains/benefits rather than (compensation of) losses. • Gains to affected people rather than people of HP/State/or local 	<ul style="list-style-type: none"> • Information on creation of annuity – community benefits sharing and similar schemes. • Cover projects underway to the extent feasible under Annuity Scheme.
		<p>committees.</p> <ul style="list-style-type: none"> • Government guarantee to address unknown future impacts (e.g. landslides). • Employment of PAF. 	<ul style="list-style-type: none"> • Proactive role in and engagement of PAF in employment processes. • Meetings and other similar forums.

PAF	<input type="checkbox"/> Lack of information and participation.	<input type="checkbox"/> Government will ensure relevant information and participation through appropriate mechanisms.	<input type="checkbox"/> DCCU and other institutions
General Public of HP Local populations	<input type="checkbox"/> Social and ecological consequences of projects borne by the people in HP while power generated is surplus to HP need.	<input type="checkbox"/> Revenue is only a subsidiary consideration; concern for ecology a government priority in hydro power development. <input type="checkbox"/> Hydro power advantages: (a) power at reasonable rates; (b) reduced tax burden on public due to additional source of revenue.	<input type="checkbox"/> State media. <input type="checkbox"/> Incorporate in appropriate PR material - e.g. Calendars & Pamphlets.

Annex 5: Note on Labour Management (HPPCL)

Category of Labour, Labour Camp and Risk assessment of labour influx and impact on host communities

1. Data on categories of labour: The labour categories are covered under highly-skilled, skilled, semi-skilled and unskilled. HPPCL's four projects have been commissioned viz Kashang HEP Stage-1, Sawra-Kuddu HEP, Sainj HEP and Berra Dol (Solar Power Project). As mentioned above that the project is commissioned thus at present no labour is available there. The construction activities are going on in Shongtong-Karchham HEP so if required the data shall be provided accordingly.

2. Data on labour camps/conditions:

2.1 Kashang Stage-1 : The following facilities had been provided in Kashang Stage-I Labour camp:

- (a) **Provision of Fuel:** During the construction of the Kashang HEP Stage-1 to mitigate the biotic pressure over adjoining / nearby forests, suitable alternate arrangement of fuel wood had been made for all the laborers and staff. The LPG Cylinders & heating arrangements had been provided to the labourers free of cost. During the construction period i.e. April, 2009 to Oct. 2016, Aprox. 7550 numbers of commercial cylinders (19Kgs/Cylinder) were provided to the workers besides running a community kitchen/mess at all the locations of Project construction sites.
- (b) **Solid Waste Management:** During the construction, the safety tank and soak pits were provided at each location of labour Colony for proper Solid Waste Management.
- (c) **Health Management:** During the construction of the Integrated Kashang HEP Stage –I, A dispensary had been opened at project site with one Doctor, one Pharmacist and medical aids. Two numbers of first aid centres had also been opened in the Intake and Power House sites. Besides that Medical camps were also organized by HPPCL in Project affected Areas and free medicines were also distributed among local inhabitants. Proper recreational facilities were also provided to laborers like television, sports kits etc. Apart from above, HPPCL has also introduced a project level medical fund scheme to cater the demand of the local inhabitants as the project is located at remote area with limited or no access to medical facilities. Approximately Rs. 13 Lakh has been disbursed by HPPCL among local inhabitants of Integrated Kashang Stage-I.
- (d) **Provision for Electricity:** Free electricity has been provided in the labourers camp for through, heating and lighting & lighting purpose.

2.2 Sawra-Kuddu HEP: The following facilities had been provided in Sawra-Kuddu HEP Labour Camp.

- (a) **Sewage Treatment Plant:** The community toilets and septic tanks were constructed near the labour camps. A sweeper was also hired for regular cleaning of community toilets as well as maintenance like replacement of faulty flushing cistern & taps etc. Since the project has been commissioned hence the toilets have been dismantled by the contractor. For the sewage disposal of Sawra Kuddu colonies two Nos. Sewage treatment plant installed at Hatkoti and Snail with the cost of Rs. 43.0 lacs.
- (b) **Solid Waste Management:** Initially three bins collection system was adopted in the colonies to collect and dispose-off solid waste. Now all the municipal waste is being incinerated at both colonies at Snail and Hatkoti. Two nos. of incinerator have been put to use, one each at Hatkoti and Snail.
- (c) **Provision of fuel:** In Sawra-Kuddu HEP, Community Kitchens for the workers were provided. The LPG & Diesel was used as fuel in Community Kitchens.
- (d) **Potable water collection and storage (bore wells, upstream river):** 8 No.s Bore wells had been installed at different locations for the purpose of drinking with proper storage arrangements.
- (e) **Strengthening of Health Management System:** The Local Health Center had been strengthened by HPPCL through providing grants to the tune of Rs. 5 lacs to cater for additional load of labour force in the area. X-Ray Machine had also been provided to the Local Health Center. On the request of local inhabitants equipment amounting to Rs. 3.00 lacs for installation of laboratory at the Primary Health Center at Sawra had also been purchased.

3. **Risk assessment of labour influx and impact on host communities:** As per the EIA the Risk assessment of labour influx and impact on host communities is as follows:
 - (a) The labour force that would work in the construction site would settle around the site. They would temporarily reside there. This may lead to filth, in terms of domestic wastewater, human waste, etc.
 - (b) Other deleterious impacts are also likely to emerge due to inter-mixing of the local communities with the labour force. Differences in social, cultural and economic conditions among the locals and labour force could also lead to friction between the migrant labour population and the total population.
 - (c) The labour force would also cut trees for use of fuel wood
 - (d) Spreading of Health related issues
4. Under the EMP to mitigate the risk assessment of labour influx and impact on host communities following provisions have been incorporated.
 - (a) Management & Monitoring of health issues in the Contractor's camp area / work areas which shall necessarily include test for HIV.
 - (b) Community outreach & communication programme including resolution mechanism to deal with issues and concerns that they may arise during the construction period.
 - (c) Code of Conduct – Work Force behaviour.
 - (d) Detailed procedures for receiving and addressing complaints including a complaint register.
 - (e) Educating the work force on traditional village life.
 - (f) Communicating risks to villagers and river user etc.

5. Mitigation of impacts.

These possible impacts were avoided by proper planning of their settlement in following manner.

- (a) As per the State Govt policy large number of labour was employed from Himachal and majority of them from local area itself so there was not any huge influx of labour *per se*.
- (b) Proper camps were provided for accommodation of labour with all the sanitary facilities, so any problem of filth did not arise. There were proper facilities for collection and incineration of solid waste and disposal of kitchen and human waste.
- (c) Since provision of free fuel for labour was mandated in the contract documents hence such fuel was provided, and community kitchens were run which prevented any littering in the project area or cutting of trees for fuel wood.
- (d) Labour camps were set up in the vicinity of the project area hence cultural mixing did not happen. In any case the numbers of outside labour were large enough to cause any significant impact on the local population in terms of their culture or local traditions even if there was any mixing.
- (e) There were proper check-ups of the labour before induction into the project work, so any health risk was also avoided.

Annex 6: Checklists for Social Assessments

Checklist for Social Assessment DOE

1. Is there an overarching policy on Social Safeguards and Social Risk management (R&R, benefit sharing, stakeholder engagement, labor welfare and rights, gender, social inclusion)
2. Are there any performance indicators against which utilities report and DOE tracks and supports?
3. DOE is responsible for examining DPR implementation against social norms. Who in DOE is responsible for this? Kindly support in meeting them.
4. Please share:
 - a. Draft copy of the Communication strategy for Himachal Pradesh
 - b. ESIA/CIA Reports
 - c. Grievance reports: DOE shared that in case of violation in projects and on receiving complaints, DOE takes up the matter with the penalizing authority, could you explain that in details with specific examples.
 - d. Organogram clearly showing E&S responsibility even if co-designated
 - e. Benefit sharing and other E&S policies
 - f. Monthly reporting on projects, which also covers labor data
 - g. Information on the Internal Complaint Committee.
 - h. any handbook or policy document for human resource management
5. Gender and Inclusion:
 - a. For DoE, could you share how many employees are women, SC, ST, OBC and PwD?
 - b. What amenities have been provided to female employees/workers at the workplace?
 - c. What measures have been taken to increase employment opportunities of women in this sector?
 - d. Is there an Internal Complaints Committee? *Kindly support in meeting with members.*
 - e. Does the agency have any internal policies or code of conduct to ensure equal opportunities for women and other marginalized groups (ST/SC, OBC, persons with disability) within the organization? Please explain and provide any service rules/regulations/govt. notifications which prescribes quotas
6. Staff and Labor:
 - a. Is the complaint system accessible to all types and category of staff?
 - b. What are the categories of complaint?
7. *Kindly support us in meeting with the Communication and Social Expert*

Checklist for Social Assessment HIMURJA

1. You shared that there is a vision document for HIMURJA keeping in mind its role for other renewable energy, could you share a draft?
2. How and where are requests for proposals (for inviting IPPs) advertised?
3. We have seen the guidelines for private investors, could you share some additional information:
 - a. List of IPPs or any database
 - b. Any ranking or ratings of IPPs
 - c. Feasibility Reports
 - d. Detailed Project Reports
4. Could you support in organizing a meeting with a few IPPs?
5. Is there any assessment on ease of business? Has there been any review of procedural bottlenecks?
6. What are the reasons for project approvals?
7. Land:
 - a. Are you aware of the land acquisition processes and procedures followed by HPPCL and what is HIMURJA's role?
 - b. Are the delays due to land related issues?
 - c. How is the community informed about the project, the possible impact and timelines?

- d. What are the challenges? What are the common land related grievances or complaints? Are there any lessons?
 - e. Is there any consolidated evaluation report on HIMURJA land related impacts? If no, would you consider it something that can be undertaken?
8. Outreach:
- a. Is there Communication Strategy for promoting renewable energy?
 - b. Who is the target audience for HIMURJA and how are they made aware?
 - c. For distribution of solar products, who are the beneficiaries?
9. GRM:
- a. Does HIMURJA receive any grievances?
 - b. Are there any systems for GRM?
 - c. Is there a responsibility matrix?
 - d. Are grievances recorded and tracked?
10. Gender and Inclusion:
- a. HIMURJA has 177 staff positions. Could you share how many employees are women., SC, ST, OBC and PwD?
 - b. What amenities have been provided to female employees/workers at the workplace?
 - c. What measures have been taken to increase employment or entrepreneurship opportunities of women in this sector?
 - d. Is there an Internal Complaint Committee?
 - e. Does the agency have any internal policies or code of conduct to ensure equal opportunities for women and other marginalized groups (ST/SC, OBC, persons with disability) within the organization? Please explain and provide any service rules/regulations/govt. notifications which prescribes quotas
11. Staff and Labor:
- a. To understand staffing systems, is there any handbook or policy document?
 - b. Is the complaint system accessible to all types and category of staff? What are the categories of complaint?
 - c. What is the role of HIMURJA in ensuring site supervision, labor safety and welfare and addressing any possible conflicts with local residents in case of migrant workers?

Checklist for Social Assessment HPPCL

1. Please share HPPCL's organogram for only environment & social management.
2. Please provide details on SAP-EHS and other applicable modules, along with corresponding indicators to measure progress on environmental and social performance in HPPCL projects.

Request for a meeting with: Persons managing the following modules: SAP Application for Environment Health and Safety (SAP-EHS) and Quality Management, Human Capital Management (SAP-HCM), Employee Self Service
3. Benefit Sharing:
 - a) Are there any guidelines/policy/G.O. on benefit sharing?
 - b) Are there any SOPs to operationalize the guidelines/policy/G.O. on benefit sharing?
 - c) Which models or types of activities are adopted for benefit sharing (revenue sharing, area development, CSR, etc)? **Any case studies available**, kindly share.
 - d) What institutional mechanisms are available to plan and implement?
 - e) What monitoring system is in place to track performance and ensure transparency in implementation?

Request for a meeting with: E&S Cell at the Corporate and PIU level
4. Capacity development:
 - a) What are the topics and themes covered under trainings provided to the staff on management of social safeguards? How many such trainings have been conducted so far?
 - b) Who conducts the trainings? Is there a training officer/manager, firms, or institutes on board? Is there any repository of curriculum/learning material?

- c) Is there a Training Calendar? Is there any Training Needs Assessment conducted?
- d) Is there a system of reporting on trainings?
- e) What are the challenges?

Request for a meeting with: E&S Cell at the Corporate and PIU level

5. Land:

- a) Please provide details on negotiated settlement processes adopted for acquiring land. How often is this process used, and why? Please share details of committees formed for negotiated settlement, and a sample MoM.
- b) How are issues pertaining to temporary disruption of services during construction addressed – livelihood, housing, access to streets/roads etc.?
- c) Please share a sample R&R Plan for existing projects along with quarterly/six-monthly compliance or R&R implementation reports.

Request for a meeting with: Anita Gupta, AO R&R and P&Ps

6. Citizen Engagement:

- a) What mechanisms are used to ensure that stakeholders are identified and that their views, concerns, and suggestions are systematically considered during project preparation?
- b) Does HPPCL have a communication strategy and designated staff or agency? If yes, what are their responsibilities?
- c) How and when are the consultations with stakeholders undertaken?
- d) Is there any system to include a representative cross-section of groups (women, poor, differently abled, SC/ST/OBC).

Request for a meeting with: E&S Cell at the Corporate and PIU level

7. GRM:

- a) What are the systems and mediums for GRM? What is the timeframe within which grievances are mostly addressed? How accessible are the GRM systems for the public, particularly for those living in remote areas?
- b) Are grievances recorded and tracked?
- c) Is there a monthly/timely report available?
- d) What is the nature of complaints mostly received? Do the established GRMs accept and process grievances relating to E&S management issues?
- e) As an institution, how does HPPCL address gender sensitivity and cases of sexual harassment?
- f) Are there any existing challenges or barriers in efficiently redressing grievances?

Request for a meeting with: Persons/Unit in charge of managing grievance redressal

8. Gender:

- a) What is the current staff strength (management, permanent employees, contractual, daily wagers)? Total: Male: Female
- b) Is there any system of positive discrimination/quotas? Please explain and provide any service rules/regulations/ govt. notifications which prescribes quotas
- c) HPPCL has an Internal Complaint Committee (ICC) for cases on sexual harassment. Can you link us with its members? What is the ICC members' role? How many members? Frequency of meetings? How are staff made aware? What is the preventive/educational role? What is the response/remedial role? What challenges do you face? How can the committee be more effective?
- d) Does the agency have any internal policies or code of conduct to ensure equal opportunities for women and other marginalized groups (ST/SC, OBC, persons with disability) within the organization?
- e) What amenities have been provided to female employees/ workers at the workplace?
- f) What measures have been taken to increase employment opportunities of women in this sector?

Request for a meeting with: HR Unit representative and ICC Member

9. Labour:

- a) Is there a system to monitor and ensure compliance of labour laws related to working hours, welfare conditions of services and employment, workplace discrimination at the construction sites?
- b) What are the systems available for the staff and construction workers to lodge complaints?
- c) Where is the labour sourced from (what percentage of migrant labour)?
- d) Are there any measures taken to ensure that the conflicts between migrants and locals are minimized?

Request for a meeting with: Contractor (Construction) and Supervision Engineers

Checklist for Social Assessment HPPTCL

1. Land:
 - a. Can you share names and designation of personnel at the Corporate Office who manage the profile of land acquisition and right of way?
 - b. How is the community informed about the project, the possible impact and timelines?
 - c. What are the challenges? What are the common land related grievances or complaints? Are there any lessons?
 - d. Is there any consolidated evaluation report on HPPTCL land related impacts? If no, would you consider it something that can be undertaken?

Request for a meeting with: PIU Staff and b. PAPs

2. Citizen Engagement and Social Inclusion:
 - a. Is there Communication Strategy?
 - b. Can you share a copy of the Stakeholder Engagement Plan?
 - c. What mechanisms will be used to ensure that stakeholders are identified and that their views, concerns, and suggestions are systematically considered?
 - d. Is there any system to include a representative cross-section of groups (women, poor, differently abled, SC/ST/OBC)?
 - e. Do you have a citizen charter?

Request for a meeting with: Mr. Madan Lal and Mr. Rahul Singh (Protection & Communication)

3. GRM:
 - a. What are the systems and mediums for GRM? (like face to face, telephonic, web base, app based)
 - b. Is there a responsibility matrix?
 - c. Are grievances recorded and tracked?
 - d. Is there a monthly/timely report available?
 - e. What is the nature of complaints mostly received? Do the established GRMs accept and process grievances relating to E&S management issues?
 - f. As an institution, how does the agency address gender sensitivity and cases of sexual harassment?
 - g. Are there any existing challenges or barriers in efficiently redressing grievances?
 - h. What is the timeframe within which grievances are mostly addressed?
 - i. How accessible are the GRM systems for the public, particularly for those living in remote areas?

Request for a meeting with: GRM in charge at corporate Office and GRM in charge at PIU

4. Gender and Inclusion:
 - a. 6 percent of HPPTCL employees are women. Can you share what positions these 20 women occupy?
 - b. What amenities have been provided to female employees/workers at the workplace?
 - c. What measures have been taken to increase employment opportunities of women in this sector (construction, O&M, etc.)?

- d. Regarding the Internal Complaint Committee: *What is the preventive/educational role? What is the response/remedial role? What challenges do you face? How can the committee be more effective?*
- e. Can you share employee breakup in terms of SC, ST, OBC and PwD?
- f. Does the agency have any internal policies or code of conduct to ensure equal opportunities for women and other marginalized groups (ST/SC, OBC, persons with disability) within the organization? Please explain and provide any service rules/regulations/govt. notifications which prescribes quotas

Request for a meeting with: Mr. Anil Kumar Sharma, Director Personnel; Mrs. Poonam Gupta, Chairperson of the ICC; Ms. Nidhi Kashyap (Intern from Baddi University)

5. Staff and Labor:

- a. To understand staffing systems, is there any handbook or policy document?
- b. Could you share a copy of Labor Management Plan?
- c. Could you share compliance reports and photographs of Labor Camps?
- d. What are the systems available for the staff to lodge complaints?
- e. Is the complaint system accessible to all types and category of staff? What are the categories of complaint?

Request for a meeting with: Mr. Rajiv Sood, Planning and Contract; Meeting with Contractors (construction)

6. Overall Social Management:

- a. Is there evidence from other projects (non-ADB) or own source to understand how HPPTCL as an institution is implementing the policy and tracking compliance?
- b. Is there an MIS? Is there a module and any indicators to measure progress on social performance?
- c. There are six topics on which user manuals have been shared, (HR, Payroll, MM, Fico, PS, AM). Is it possible to go over the manual relevant for ones used by Social Experts?
- d. Is there any training portfolio for social safeguards? Can you share topics, calendar, experts and results?
- e. Can you share anything about the Vigil Mechanism Committee?

Request for a meeting with: Jyotidhari Singh, Environment and social Monitoring cell; PIU Managers and Meeting with PAPs (with support of the E&S Cell)

Checklists for Social Assessment: HPSEBL

1. Please clarify boundaries of HPPTCL and HPSEBL's role in terms of development of transmission systems (substations and transmission lines, etc.).
2. Please share HPSEBL's organogram for environment & social management.

Request for a meeting with: Reema Kashyap, HPSEBL

3. Capacity development:

- a) What are the key topics and themes covered under trainings provided to the staff and workers? Does it cover occupational health and safety, workers welfare, emergency preparedness, grievance redressal, R&R issues, among others?
- b) Who conducts the trainings? Is there a training officer/manager, firms, or institutes on board? Is there any repository of curriculum/learning material?
- c) Is there a Training Calendar? Is there any Training Needs Assessment conducted?
- d) Is there a system of reporting on trainings?
- e) What are the challenges?

Request for a meeting with: Reema Kashyap, HPSEBL

4. Land and livelihood:

- a) Does HPSEBL have a utility level Resettlement and Rehabilitation Policy applicable to both externally funded (KfW, ADB, etc.) and planned & non-planned supported schemes?
- b) Are social safeguard requirements applied to all projects (irrespective of source of funding)?
- c) Have any environmental and social assessment been undertaken for the proposed Smart Grid project (in 13 towns)? Please share details.

- d) What systems are in place to ensure that crop compensation/ R&R given is reached to the beneficiaries.
- e) Please provide a Resettlement Plan, along with implementation reports for crop compensation/LA R&R for KfW projects.

Request for a meeting with:PIU staff managing compensation/R&R in HPSEBL and PAPs

5. Consumer engagement/satisfaction:

- a) Tariffs: What procedure is used for determining tariffs? How often are tariffs revised? How do consumers and others participate in the process? Are any subsidies provided to marginalized communities/groups? Please provide details.
- b) Outreach: Does HPSEBL have a communication and outreach strategy and designated staff or agency? If yes, what are their responsibilities? What are the key outreach strategies used by HPSEBL and when are they applied? Please share details of outreach activities undertaken in FY 2020-21.
- c) Satisfaction index: Does HPSEBL have any consumer feedback mechanism and performance benchmark to assess consumer satisfaction in terms of affordability, reliability, quality, and efficiency of services?

Request for a meeting with:Communication Expert in HPSEBL and Secretary, Consumer Grievance Redressal Forum

6. Citizen Engagement:

- a) What mechanisms are used to ensure that stakeholders are identified and that their views, concerns, and suggestions are systematically considered during KfW project preparation?
- b) Please share a copy of KfW project's Stakeholder Engagement Plan.
- c) How are issues pertaining to temporary disruption of services during construction/repairs/upgradation/maintenance works addressed by HPSEBL?

Request for a meeting with:Communication Expert in HPSEBL and PAPs

7. GRM:

- a) Please provide details on constitution and convening of Consumer Grievance Redressal Forums.
- b) What is the timeframe within which grievances are mostly addressed? How accessible are the Consumer Grievance Redressal forums for the public, particularly for those living in remote areas?
- c) As an institution, how does HPSEBL address gender sensitivity and cases of sexual harassment?
- d) Are there any existing challenges or barriers in efficiently redressing grievances?

Request for a meeting with:Office of Chief Engineer, Planning Systems and Secretary, Consumer Grievance Redressal Forum

8. Gender:

- a) What is the current staff strength (management, permanent employees, contractual, daily wagers)? Total: Male: Female
- b) Is there any system of positive discrimination/quotas? Please explain and provide any service rules/ regulations/ govt. notifications which prescribes quotas
- c) HPSEBL has an Internal Complaint Committee (ICC) for cases on sexual harassment. Can you link us with its members? What is the ICC members' role? How many members? Frequency of meetings? How are staff made aware? What is the preventive/educational role? What is the response/remedial role? What challenges do you face? How can the committee be more effective?
- d) Does HPSEBL have any internal policies or code of conduct to ensure equal opportunities for women and other marginalized groups (ST/SC, OBC, persons with disability) within the organization?
- e) What amenities have been provided to female employees/ workers at the workplace?
- f) What measures have been taken to increase employment opportunities of women in this sector?

Request for a meeting with:Reema Kashyap, HPSEBL

9. Labour:

- a) Is there a system within HPSEBL to monitor and ensure compliance of labour laws related to working hours, welfare conditions of services and employment, workplace discrimination?
- b) What are the systems available for the staff/workers to lodge complaints?

- c) Please share the Standard Operating Procedures adopted on workers' safety. Also, share information on worksite accidents, near misses and action taken in the last financial year.

Request for a meeting with: Contractor/s (Construction); Supervision Engineer for projects financed by KfW; Chief Safety Officers

Checklists for Social Assessment: HPSLDC

1. Please provide details on the ongoing Internship Program in HPSLDC- advertisement process, application process, selection criteria, duration of internship (45 days?), nos. of interns taken in a year, nos. of women applicants in FY 2020-21.
2. Please provide details on grievance redressal systems for all staff: officials on secondment, consultants, contractors, interns, etc.
 - a) How does a staff member register a complaint?
 - b) What is the timeframe within which grievances are mostly addressed?
 - c) Are grievances recorded and tracked?
 - d) What is the nature of complaints mostly received?
 - e) Are there any existing challenges or barriers in efficiently redressing grievances?
3. Is there any system of positive discrimination/quotas? Please explain and provide any service rules/ regulations/ govt. notifications which prescribes quotas.
4. There is an Internal Complaint Committee (ICC) for cases on sexual harassment. Require the following details: *What is their role? How many members? Frequency of meetings held, How are staff made aware? What is the preventive/educational role? What is the response/remedial role? What challenges do you face? How can the committee be more effective?*
5. Does HPSLDC have any internal policies or code of conduct to ensure equal opportunities for women and other marginalized groups (ST/SC, OBC, persons with disability) within the organization? Please share details on HR policies on maternity benefit, employment welfare, equal opportunities, etc. applicable to HPSLDC.

Request for a meeting with: Sanjay Ranaut, SLDC and Member of ICC

Annex 7: Consolidated Summary of Assessment against Core principles

DoE	HPPTCL	HPPCL	HPSEBL	HIMURJA	HPSLDC
Core Principle #1: Program E&S management systems are designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects.					
SOCIAL ASSESSMENT:					
DoE has the legal authority and backing for aggregating, developing, mainstreaming, and monitoring the social policies, systems, and reporting mechanisms. At present DoE does not have any systems to monitor if screening and scoping are done by Power Utilities/Departments at project levels. The officials have additional charge of social management, and the capacity development portfolio is not systematized for developing adequate skills in performing the responsibilities. Also, documentation available on GRM is scant.	As per Environment and Social Safeguards Policy (ESSP), HPPTCL is to ensure that development of power transmission system network in socially sustainable manner and public disclosure for transparency and mainstreaming the environmental and social concerns in operations. There is an Environment and Social Cell (ESC) at the Corporate Level to manage safeguard compliance. To assess the overall E&S performance of HPPTCL, reports on performance against key social indicators are not available. Also, documentation available on GRM is scant.	HPPCL has an E&S policy and provisions as well as reporting and tracking mechanisms. HPPCL organizes public consultations, RR staff maintains direct contact with PAFs and keeps them aware about the project and welfare activities being carried out by the organization. They have also appointed coordinators from the project area who are the effective mean of communication with local people. Community Based Organizations are also utilized for such activities. HPPCL has established GRCs in every project. However, reports on social performance and outcomes are not available. Similarly, information at corporate level on GRM remains limited	The legal framework at national and state level is robust and the utilities take cognizance of it. ESMP is required for managing substation project to address the issues of screening, managing and mitigating social risks. Lack of institutional procedures, practices as the compliances are project specific. The Contractor is responsible for carrying out the work at the proposed site in full compliance with this ESMP and applicable regulations. With limited documentation on management of social risk indicates that there are substantial gap in reporting	The legal framework at national and state level is robust and HIMURJA is supported by utilities and their systems for implementation and monitoring. There are multiple systems for GRM as well. HIMURJA does not have the mandate, corresponding systems and capacities on social risk management despite significant social impacts of the projects its supports. Available documentation makes it difficult to track accessibility, efficiency and effectiveness of the GRM.	The overall policy in the country and the state related to social management like resettlement, benefit sharing, citizen engagement, social inclusion, gender mainstreaming and labor rights are in place. The mandate of SLDC and the activities under PforR are limited to digital solutions and backend data support which do not have specific social implications.
ENVIRONMENTAL ASSESSMENT: Environmental Management Systems are working for major projects having regulatory or funding requirements.					

DoE	HPPTCL	HPPCL	HPSEBL	HIMURJA	HPSLDC
<p>DoE provides policy support for developing and executing the projects but does not have an umbrella E&S framework . The Individual Power Utilities/ Departments have their own systems of screening and scoping. At present DoE does not have any mechanisms to check if screening, scoping and monitoring and all these are appropriately taken care by Power Utilities/ Departments at project levels.</p> <p>The exiting cumulative impact analysis (CIA) and individual EIAs based environmental management plans of various interventions in the sector although address almost all parameters, however need further strengthening on the issues related to changes in hydrological regime, downstream flows, territorial and aquatic biodiversity, etc. The existing resources are overburdened with additional charges and also planned resources are not</p>	<p>ESMF is in place for assessments of potential impacts. The prescriptive framework also covers international treaties and convention signed and ratified by India. ESSP policy is in place, spells out identification of mitigation measures and considers environmental implications of location, terrain and sensitive areas in impact identification and mitigates these with innovative, practical engineering solutions. It is noted that the existing systems and practices are project and activity specific and integrated, which can be applied across the activities of HPTCL.</p> <p>Though there are clear depictions of Role and Responsibility with emphasis on adherence to their ESSP policy for all officials including dedicated personnel for environment. However, there is no regular staff on environment. The current staffs are hired on need and contract basis, and lacks skill on biodiversity.</p>	<p>HPPCL's Environment Policy for Hydro Power Projects is guided by the principles of sustainable development, minimum environmental setbacks and economic efficiency and viability. HPPCL have clear institutional responsibilities and resources to support implementation of environmental management plans. Environment Social Management Unit (ESMU) in place for documentation and preparation of EIA, ESMP in coordination with consultants. The head of ESMU works on additional charge basis. Dedicated and trained E&S staffs are present in HPPCL. There is complete transparency with different stakeholders on sharing information. Compliance reports are filed on regular basis for submission to different authorities. Gap analysis based, comprehensive Strategic environmental and social analysis is being envisaged during the project to</p>	<p>HPSEBL has ESMP which captures early identification for physical, environmental, ecological resources. It needs to be made uniform and strengthened further for making it part of planning, operational, monitoring of all projects under HPSEBL. It has recognized elements of environmental and social assessment of good practices for potential effects. Though present evidences for such practices in the phases of implementation and monitoring.</p> <p>A comprehensive Environment Social system Procedures Document is recommended during the project period.</p>	<p>The allotment of small hydel projects is governed through the Hydro Power Policy framed in 2006 and its amendments till date. At present no formal E&S system exists for explicit assessment of potentially induced, and cumulative, impacts.</p> <p>The program will support in strengthening institutional capacity by developing systems for addressing environmental risk impacts. Policy and procedures will be developed covering environmental screening, risk identification, implementation procedures and monitoring protocols, including biodiversity, health safety and climate change aspects for all activities.</p> <p>A comprehensive Environment Social system Procedures Document is recommended during the project period</p>	<p>Environmental footprint is limited and systems will developed for e-waste management, health and safety at the work place and energy efficiency. .</p> <p>A comprehensive Environment Social system Procedures based on above aspects will be developed during the project.</p>

DoE	HPPTCL	HPPCL	HPSEBL	HIMURJA	HPSLDC
<p>allocated for training and strengthening the system</p> <p>DoE lacks an all-inclusive environmental monitoring and management system, on the lines of global best industries practices.</p> <p>Strengthening of evidence based IT enabled dash board for an integrated state level reporting and monitoring system at DOE to bring integration of environmental management milestones of the projects/ activities of all utilities on environmental risks and their management and mitigation actions thereof is recommended .</p>	<p>A comprehensive Environment Social system Procedures Document is recommended during the project period</p>	<p>recommend environmental, social and climate change-based sustainability benchmarking protocols for existing, pipeline and new projects. .</p> <p>A roadmap to develop a comprehensive strategic policy document for basin wide environmental sustainability protocols in the Power Sector.</p> <p>Capacity strengthening to train staff on benchmarking protocols and regular sustainability monitoring</p>			
<p>Core Principle #2: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing.</p>					
<p>SOCIAL ASSESSMENT:</p>					
<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
<p>ENVIRONMENTAL ASSESSMENT: None of the Program activities are in geographical locations, which involve critical natural habitats or critical physical cultural heritage areas. There will be no conversion or degradation of critical natural habitats.</p>					
<p>DoE is dependent on project developers for taking appropriate measures for early identification and screening of potentially important biodiversity and</p>	<p>ESSP policy speaks of measures to avoid, minimize and mitigate any potential adverse impacts on any sort of physical cultural property and</p>	<p>The agency pays explicit attention on environmental screening and assigns values to biodiversity resources at or near the upper end of the range of uncertainty. In particular, ancient</p>	<p>ESMP is there that takes account of impact on physical cultural properties and ensures avoidance of Eco sensitive areas, Forest areas or to keep it to the</p>	<p>There is no policy framework available to avoid, protect or conserve critical natural habitats.</p> <p>The program will support the agency to develop systems to address E&S</p>	<p>Not applicable</p>

DoE	HPPTCL	HPPCL	HPSEBL	HIMURJA	HPSLDC
<p>cultural resource areas. Project specific Policy do exist and followed by individual entities. The program is unlikely to have adverse impact on critical natural habitat and physical cultural heritage. The integrated monitoring system of environmental and social aspects of all utilities as per their project milestones is also required at DoE level. Since DoE acts on behalf of Government of HP, DoE needs to act as nodal department on environmental and social policy procedures, guidelines, scoping and monitoring.</p> <p>Integrated IT enabled M&E system will capture natural habitats and physical cultural resources data of the program.</p>	<p>avoiding any sort of destruction or damage to them by using field-based surveys that employ qualified and experienced experts during the environment assessment. There are provisions for the use of 'chance find' procedures and ensures the management/ conservation approach for any such materials discovered during project implementation. There is a gap of application of policy at uniform scale if there is no regulatory or funding requirement.</p> <p>Strengthening ESPP is recommended so as to have uniform environmental systems for management and monitoring.</p>	<p>sacred groves and "biodiversity hotspots" are treated as possessing "Incomparable Values⁶⁰". The agency has process and systems in place to address E&S risks and impacts.</p> <p>Updated and strengthened ESPP is recommended to Integrate all-encompassing uniform system on screening, managing and monitoring for an effortless execution of projects is lacking.</p>	<p>barest minimum, any concern is addressed by incorporating the same into designs or mitigating the same by keeping the provisions in EMP. In existing system there is an absence of clear and uniform E&S policy for guiding mandates on protection, conservation and rehabilitation of natural habitats; avoids the significant conversion or degradation of critical natural habitats and measures to mitigate or offset impacts or program activities</p> <p>Updated and strengthened ESPP is recommended to Integrate all-encompassing uniform system on screening, managing and monitoring for an effortless execution of projects is lacking.</p>	<p>risks that will have in-built screening mechanism.</p>	

⁶⁰ Species with high genetic value are identified as 'Incomparable Value' under HPPCLs Environmental Policy and strive to site its projects such that the ecology of any environmentally sensitive zones or high value conservation areas is least affected and it is ensured to not affect such species or their habitat in any way.

DoE	HPPTCL	HPPCL	HPSEBL	HIMURJA	HPSLDC
Core Principle #3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.					
SOCIAL ASSESSMENT:					
Adequate legal provisions in the national and state laws which are a part of the bid documents for all projects. There is a gap in the tracking and reporting on sites, labour conditions, any cases of labour law violation, gender-based violence. There is also an absence of systems for risk assessment of labour influx and impact on host communities.	Adequate legal provisions in the national and state laws which are a part of the bid documents for all projects. Labour records are maintained at site and monthly reports submitted. It is ensured that Contractor has GRM for workers/labour and its records are also maintained.	Adequate legal provisions in the national and state laws which are a part of the bid documents for all projects. Labour records are maintained at site and monthly reports submitted. Absence of clear systems and capacities to map social risks and track social outcomes.	Adequate legal provisions in the national and state laws which are a part of the bid documents for all projects. Labour records are maintained at site and monthly reports submitted. Absence of clear systems and capacities to map social risks and track social outcomes.	Adequate legal provisions in the national and state laws which are a part of the bid documents for all projects. Labour records are maintained at site and monthly reports submitted. Absence of clear systems and capacities to map social risks and track social outcomes.	HPSLDC has staff on secondment so their grievances and day to day work issues are handled by the parent employer. It is recommended that SLDC creates an internal forum to discuss concerns and complaints in a timely and accessible manner. In addition, SLDC can create avenues to increase women staff which is only 4 percent now.
ENVIRONMENTAL ASSESSMENT: The nature of activities is such that there is no exposure to toxic chemicals, hazardous wastes and dangerous materials in any of these Program activities. Though there exist risk since activities are located in fragile Himalayan areas, prone to natural hazards.					
. DoE promotes and guide/direct project developer to ensures the use of good international practices in risk assessment and disaster mitigation. In present practice Project Developers keep provisions for Contractor to impart necessary systems on workers and community safety including training/awareness regarding safety aspects to its personnel working and ensure that	The agency has integral systems workers and public safety. It also has procedures to manage hazardous waste and toxic chemicals as mandated under provisions. All these systems will be integrated in "Environmental Social Policy Procedures (ESPPs)". It is already part of bid/contract documents. Streamline and integrate reporting practices that will guide operational practices	Project specific compliances on public and worker safety including risk assessment and disaster response systems are there. It is already part of bid / contract documents. An efficient monitoring and evaluation system to ensure compliance to	HPSEBL has a safety manual and safety officers are in place and the program will further strengthen the existing system and make them project or activity independent. There will be provisions for public and worker safety as part of the bid / contract documents.	No measures of monitoring and evaluation of environmental concerns and conditions including disaster mitigation is found at HIMURJA The program will support the agency to develop systems to address public and worker safety concerns and also climate hazards. There will be provisions for public and worker safety as part of	Not applicable

DoE	HPPTCL	HPPCL	HPSEBL	HIMURJA	HPSLDC
<p>first-aid facilities are mandatorily be made available with the labour gangs and ambulance/ doctors on call from nearby towns when necessary. DoE is part of regular monitoring of dam safety issues for large dam projects and co-ordinates with National Disaster Management Authority and State Authorities. The present process lack in uniform guidelines for all activities and utilities that DoE should guide and monitor in all aspects of risk mitigation and disaster management including workers and community safety.</p>	<p>and report (a) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials used; and (d) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards incorporating recommendations from District Disaster management Plans and other safety issues.(c) emergency response systems and accident and incident reporting</p>	<p>public and health safety measure is unavailable.</p>		<p>the bid / contract documents</p>	
<p>Core Principle #4: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards</p>					
<p>SOCIAL ASSESSMENT</p>					
<p>Policies are robust at the national, state and sectoral level to protect the interests of the project affected persons during construction stage of energy sector projects. The Tariff Policy, 2006 and Himachal Pradesh Land Area Development Fund</p>	<p>HPPTCL monitors and measures the progress of implementation of the Resettlement Action Plan. It also has a designated Land Acquisition Officer, who is responsible for coordination with the local revenue office, district administration, and</p>	<p>Policies are robust at the national, state and sectoral level to protect the interests of the project affected persons during construction stage of energy sector projects. The Tariff Policy, 2006 and Himachal Pradesh Land Area Development Fund</p>	<p>As of now, HPSEBL follows procedures as per the E&S guideline applicable to other utilities or as per the requirements of the donors. Generally, there is no land acquisition, and only use government or available land, but crop compensation and</p>	<p>Policies are robust at the national, state and sectoral level to protect the interests of the project affected persons during construction stage of energy sector projects. The Tariff Policy, 2006 and Himachal Pradesh Land Area Development Fund</p>	<p><i>Not applicable</i></p>

DoE	HPPTCL	HPPCL	HPSEBL	HIMURJA	HPSLDC
enumerates benefit sharing mechanisms for people adversely affected by hydropower projects.	acquisition of land and payment of compensation. HPPTCL also prepares monitoring reports on RAP implementation. The GRM system for land acquisition needs strengthening.	enumerates benefit sharing mechanisms for people adversely affected by hydropower projects. There is an absence of integrated management and reporting and systems required for GRM tracking.	stakeholder consultations for RoW are undertaken. For this, ESMP is also prepared and implemented. SMART GRID DPR does not specify how issues of temporary adverse impacts will be mitigated and monitored.	enumerates benefit sharing mechanisms for people adversely affected by hydropower projects. There is an absence of integrated management and reporting and systems required for GRM tracking.	
ENVIRONMENTAL ASSESSMENT					
<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>	
Core Principle #5: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (hereafter referred to, interchangeably, as Tribals, Tribal Groups or Tribal Populations), and to the needs or concerns of vulnerable groups)					
SOCIAL ASSESSMENT					
Information on implementation of targeted schemes for Scheduled Tribes on the utility's projects is not available.	HPPTCL's Environment and Social Safeguards Policy principles provide that HPPTCL shall take due precautions to avoid disturbance to human habitations, tribal areas and places of cultural significance and minimize the same wherever inevitable. The ESSP also provides that HPPTCL will pay special attention to marginalized and vulnerable groups and secure their inclusion in overall public participation. However, Information on implementation of targeted schemes for Scheduled	HPPCL has several project and institutional level mechanisms to ensure representation and inclusion of the tribals. Moreover, in the projects situated in tribal areas, HPPCL has recruited the RR staff from the Project affected families/project affected area who work in close liaison with the PAFs. Reporting on the mitigation measures and the laws safeguarding the rights of the tribals remains <i>ad hoc</i> and can be strengthened.	Information on implementation of targeted schemes for Scheduled Tribes on the utility's projects is not available.	Information on implementation of targeted schemes for Scheduled Tribes on the utility's projects is not available.	Not applicable

DoE	HPPTCL	HPPCL	HPSEBL	HIMURJA	HPSLDC
	Tribes on the utility's projects is not available.				
ENVIRONMENTAL ASSESSMENT					
<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Core Principle #6: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes (Not Applicable)					