Program Preparation Study for a Program Budget Support for Disaster Risk Reduction and Preparedness in Himachal Pradesh

FINAL REPORT

(Program Document)

September 2023

Management & Governance Consulting
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Agence Française de Développement (French Development Agency)

Program Document

for a

proposed loan of Euro 81.9 million

to

India

for

CIN 1149 - Himachal Pradesh Disaster Risk Reduction and Preparedness Program

Program Budget Support

September 2023

Currency Equivalents: EUR 1 = INR 89

Fiscal Year: April 1 to March 31

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Abbreviations

AAS	Agromet Advisory Services
AFD	French Development Agency
AG	Accountant General
AG (A&E)	Accountant General (Accounts & Entitlement)
AGiSAC	Aryabhatta Geo-informatics and Space Application Centre
APFS	Annual Program Financial Statements
AR	Assessment Report
BBMB	Bhakra Beas Management Board
C&AG	Comptroller and Auditor General of India
CAAA	Controller of Aid Accounts & Audit
CC	Climate Change
CCA	Climate Change Adaptation
CCAP	City Climate Action Plan
CCVA	Climate Change Vulnerability Assessment
CER	Contingency Early Response
CFA	Credit Facility Agreement
CWC	Central Water Commission
DDMA	District Disaster Management Authority
DDO	Drawing & Disbursing Officer
DeMPA	Debt Management Performance Assessment
Dept.	Department
DEOC	District Emergency Operations Centre
DEST&CC	Department of Environment, Science, Technology & Climate Change
DLI	Disbursement Linked Indicators
DMC	Disaster Management Cell
DMP	Disaster Management Plans
DMPMS	Disaster Management Plans Monitoring System
DoR	Department of Revenue
DPIU	Divisional/District Program Implementation Unit
DPR	Detailed Project Report
DRR	Disaster Risk Reduction
DRR-PFM	Disaster Resilient and Responsive PFM
DSS	Decision Support System
E&S	Environmental and Social
EA	Executing Agency
EAP	Externally Aided Project
EHS	Environmental, Health and Safety
EnC	Engineer in Chief
EOC	Emergency Operations Centre

ERSS	Emergency Response Support System
ESCP	Environmental & Social Commitment Plan
ESIA	Environment & Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environment & Social Management Plan
ESS	Environment & Social Standards
ESSA	Environmental and Social System Assessment
ESZ	Ecologically Sensitive Zone
EUR	Euro
EWS	Early Warning System
ExEn	Executive Engineer
FD	Finance Department
FM	Financial Management
FRBM	Fiscal Responsibility and Budget Management
FSA	Fiduciary Systems Assessment
FY	Financial Year
GAP	Gender Action Plan
GDP	Gross Domestic Product
GeM	Government e-Marketplace
GFR	General Financial Rules
GHG	Greenhouse Gas
GIIP	Good International Industry Practice
GIS	Geographical Information System
GLOF	Glacial Lake Outburst Flooding
GoHP	Government of Himachal Pradesh
GoI	Government of India
GPDP	Gram Panchayat Development Plan
GRM	Grievance Redressal Mechanism
GSDP	Gross State Domestic Product
HAZMAT	Hazardous Materials
HIMCOSTE	Himachal Pradesh Council for Science Technology and Environment
HIPA	Himachal Institute of Public Administration
HoA	Head of Account
HP	Himachal Pradesh
HP DRRP	Himachal Pradesh Disaster Risk Reduction and Preparedness
HPFD	Himachal Pradesh Forest Department
HPFR	Himachal Pradesh Financial Rules
HPPCL	Himachal Pradesh Power Corporation Limited
HPPWD	Himachal Pradesh Public Works Department
HPSAD	Himachal Pradesh State Audit Department
HPSDMA	Himachal Pradesh State Disaster Management Authority

HPSIDM	Himachal Pradesh State Institute of Disaster Management
HR	Human Resource
IA	Implementing Agency(ies)
ICT	Information Communication Technology
IEC	Information Education and Communication
IFMIS	Integrated Financial Management Information System
ILO	International Labour Organization
IMD	Indian Meteorological Department
INR	Indian Rupee
IPCC	Intergovernmental Panel for Climate Change
IPP	Indigenous People Plan
IPPF	Indigenous People Planning Framework
IR	Intermediate Results
IT	Information Technology
IVA	Independent Verification Agency
LoC	Letter of Credit
M&E	Monitoring & Evaluation
MAPS	Methodology for Assessing Procurement Systems
MDA	Ministries, Departments, and Agencies
MIS	Management Information System
NDMA	National Disaster Management Authority
NDRF	National Disaster Response Fund
NGO	Non-Governmental Organization
NOC	No Objection Certificate
OHS	Occupational Health & Safety
OI	Outcome Indicators
OP	Operation Policy
OP/ BP	Operational Principles/Bank Policy
PAC	Public Accounts Committee
PAP	Program Action Plan
PBS	Program Budget Support
PEC	Program Executive Committee
PEF	Program Expenditure Framework
PEFA	Public Expenditure and Financial Accountability
PFM	Public Finance Management
PIU	Project Implementing Unit
PMDC	Program Management and Design Consultant
PMS	Program Monitoring System
PMU	Project Management Unit
POM	Program Operations Manual
PSC	Program Steering Committee
QC	Quality Control
QPR	Quarterly Progress Report

RAP	Rehabilitation Action Plan
RBF	Results Based Financing
RP	Resettlement Plan
SAPCC	State Action Plan on Climate Change
SBD	Standard Bidding Document
SDG	Sustainable Development Goals
SDMP	State Disaster Management Plan
SDNO	State Departmental Nodal Officer
SDRF	State Disaster Response Force
SEOC	State Emergency Operations Centre
SORT	Systematic Operations Risk Rating Tool
TA	Technical Assistance
TDU	Technology Demonstration Units
ToR	Terms of Reference
UC	Utilization Certificate
URL	Uniform Resource Locator
WB	World Bank

1 Key Program Facts

Table 1: Key Program Facts

Country	India					
Program Name	Himachal Pradesh Disaster Risk Reduction and Preparedness (HP DRRP) Program					
Program ID	CIN 1149					
Program Goal	"Increased disaster and climate resilience among State systems and local communities in Himachal Pradesh."					
Program Objective	"To transition to a holistic disaster and climate risk reduction framework through resilient infrastructure and improved governance."					
Program Tenure	5 years					
Expected Commencement	April 2024					
Expected Completion	March 2029					
Program Outlay	Euro (EUR) 100.2 million | Indian Rupee (INR) 891.8 crores					
Funding Pattern	AFD – EUR 81.9 million (81.7%), GoHP – EUR 18.3 million (18.3%)					
Annual Projections (EUR million)	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Program Expenditure	15.1	34.1	22.3	19.0	9.8	100.2
Disbursement	11.8	28.4	18.3	15.6	7.8	81.9
Financing Instrument	Program Budget Support (PBS)					
Disbursement Tracks and percentage of AFD funding	• Reimbursement Track – 81.7% • Results-based Financing Track – 18.3%					
Strategic Alignment with	(i) State Policy on Disaster Management, 2011 and the State Disaster Management Plan, 2017 (updated 2020) (ii) State Action Plan on Climate Change – 2021-2030 (iii) Sendai Framework for Disaster Risk Reduction 2015-2030					
Program Components	**Component 1:** Enhancing disaster risk governance, through improved institutional capacities, risk understanding and knowledge management. **Component 2:** Strengthening disaster preparedness, through effective early warning systems and better emergency response capacities. **Component 3:** Supporting mitigation measures, including eco-DRR and nature-based solutions.					
Cross-cutting Themes	Institutional strengthening, capacity building, climate, gender					
Program Expenditure Boundary	• 21 Projects across the three Program Components • Contingency Early Response of up to 10% of Program outlay • Program Management					
Nodal Agency	Himachal Pradesh State Disaster Management Authority operating through the Disaster Management Cell at Department of Revenue and 12 District Disaster Management Authorities					
Implementing Agencies	**Government Departments (7):** Civil Defence and Home Guards Department, Department of Environment, Science, Technology & Climate Change (DEST&CC), Department of Tourism and Civil Aviation, Fire Services Department, Himachal Pradesh Forest Department (HPFD), Himachal Pradesh Public Works Department (HPPWD), Police (State Disaster Response Force - SDRF). **Central Institutions (2):** Central Water Commission (CWC), Indian Meteorological Department (IMD).					

2 Program Results Framework

2.1 Strategic alignment to policy priorities of GoHP

The Program is aligned to the strategic priorities of GoHP as outlined in the State Policy on Disaster Management - 2011, State Disaster Management Plan - 2017 (updated 2020) (SDMP), and State Action Plan on Climate Change – 2021-2030 (SAPCC). Further, the Program attempts to address the priorities set out in the Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework). These strategic priorities form the cornerstones around which the Program is designed. The underlying philosophy of the Program Goal and Program Objective, the Program Outcomes, and the design of Components and Projects/Activities[1] are in sync with GoHP's policy objectives. The SDMP, together with the SAPCC, represent the larger GoHP Program within which AFD Program is positioned.

GoHP's State Policy on Disaster Management - 2011 emphasizes promoting a culture of prevention, preparedness, and resilience at all levels, through knowledge, innovation, and education, and by mainstreaming disaster management into developmental planning. The Policy further proposes to address gender issues in disaster management with special thrust on empowerment of women towards long term disaster mitigation. It recognizes that establishing institutional and techno-legal frameworks to create an enabling regulatory environment and a compliance regime is a prerequisite for successful disaster management in the State. Aligning to the policy intent, the Program envisions improvements to the Disaster Risk Reduction (DRR) Framework in the State through updates to key policy documents governing disaster management. Significant emphasis has been placed on developing new and improving existing institutional capacities to efficiently manage disasters. The Program proposes to mainstream climate change and disaster risk resilience through integrated rural and urban planning. The Program emphasizes on adopting gender-sensitive policies and actions across the disaster management cycle.

The State Disaster Management Plan - 2017 (updated 2020) (SDMP) recognizes a "multi-disciplinary approach and a strong coordination mechanism for successful disaster management" and emphasizes on "development of various functional, procedural and operational systems." The Program tries to build upon this approach by including Projects/Activities of varied types: disaster mainstreaming and knowledge development, resilience building, disaster response capacity building, and disaster mitigation and rehabilitation. Additionally, the Program attempts to strengthen public finance and information technology systems related to the disaster management function. Projects/Activities under the Program will help the Government of Himachal Pradesh (GoHP) comprehensively enhance its disaster resilience and capabilities in disaster management. Proposed Projects/Activities represent a healthy mix of infrastructure investments and soft actions and are adequate and coherent in achieving the Program Goal and Objective. *Table 3: List of Projects/Activities* gives a mapping of the proposed Projects to relevant Sections of the SDMP.

[1] 'Projects' refer to the proposed 16 investment Projects and 'Activities' refer to five activities targeted under the RBF Sub-component of Component 1 of the Program.

The State Action Plan on Climate Change – 2021-2030 (SAPCC) envisages a strategic knowledge mission for climate change to develop a dynamic knowledge system that would help in attaining the objective of ecosystem-level sustainable development. It aims to develop a better understanding by acquiring and upgrading information and knowledge available from the discipline of climate science and analyzing the impacts of climate change at the micro and local level and create balance in the ecosystem. The GoHP has prioritized five activities in the SAPCC with focus on collection and analysis of micro-level climate data and projects on climate changes and vulnerability assessment at watersheds at regional and local level; identification of research gaps; and mapping of knowledge base. Further, the SDMP identifies "integrating climate change adaptation (CCA) with disaster risk reduction (DRR)" as a crucial gap that the 2020 update tries to address. The inter-connectedness between climate change and disasters is a prominent theme across the SDMP. The priority, therefore, figures in the Program Goal and Objective statements and reflects in the design of the proposed Projects and soft actions.

The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework) identifies the following four priorities:

- Priority 1. Understanding disaster risk,
- Priority 2. Strengthening disaster risk governance to manage disaster risk,
- Priority 3. Investing in disaster risk reduction for resilience, and
- Priority 4. Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation, and reconstruction.

The SDMP calls out six major elements of the global framework for disaster management relevant to HP, which include, activities, outcomes and targets at national and sub-national levels; relevance of "all of society" and "whole of government" approaches; shift in focus from disaster management to disaster risk management; and the emphasis on disaster risk reduction for sustainable development. Proposed Program interventions are in sync with the overall Sendai Framework as well as the specific elements of the Framework called out in the SDMP.

2.2 Program Goal and Objective

The Program Goal is **"Increased disaster and climate resilience among State systems and local communities in Himachal Pradesh"** and the Program Objective is **"to transition to a holistic disaster and climate risk reduction framework through resilient infrastructure and improved governance."** This is intended to be achieved through a multi-pronged strategy comprising of: (i) strengthening the policy framework around disaster management, enhancing institutional capacities and better knowledge management; (ii) improving disaster preparedness across the State by implementing early warning systems and building disaster response capacities; and (iii) mitigation and rehabilitation measures integrating nature-based solutions. There will be a strong emphasis on integrating climate and gender aspects into the Program and institutionalizing the changes to ensure long-term sustainability.

2.3 Program Outcomes and Outcome Indicators

The Program Objective is expected to be achieved through the following outcomes.

A. Sustained institutional capacity building in State Emergency Operation Centre (EOC), District EOCs, Himachal Pradesh State Disaster Management Authority (HPSDMA), District Disaster Management Authorities (DDMA), and Himachal Pradesh State Institute of Disaster Management (HPSIDM).
B. Updated State and District Disaster Management Plans (DMP) by end of Program period.
C. Improved responsiveness of public financial management (PFM) systems of the State to disaster management needs.
D. Improved state of disaster preparedness.
E. Reduced damage from landslides and earthquakes.

The following eight Outcome Indicators (OI) will be used to assess achievement of the Program outcomes:

- OI1: State has created budget provision for continued operation of State and District EOCs, HPSDMA, DDMAs and HPSIDM (in last two Financial Years (FY) of the Program).
- OI2: State Disaster Management Plan updated and approved.
- OI3: Emergency Procurement Guidelines notified.
- OI4: 5-year moving average of annual losses due to landslides, flash floods, and road accidents combined shows a declining trend over the Program period.
- OI5: State has established or has prepared a blueprint and allotted budget for at least two more State Disaster Response Force (SDRF) Companies (in addition to Kangra).
- OI6: Average time to reach unserved locations has decreased by 75%.
- OI7: 1% of the State's population is trained as volunteers for disaster response.
- OI8: No instances of further landslide in at least 5 of the 11 mitigated sites in last two years of the Program.

2.4 Program Results Chain

Disaster management systems in the State of HP have traditionally remained weak. The State has borne the brunt of climate change and is highly vulnerable to natural disasters like unseasonal rain and snowfall, drought, flooding, landslides, and lake bursts, with the number of incidences increasing rapidly in recent years. The GoHP faces specific challenges in enhancing its resilience to disasters, which include: (i) lack of adequate infrastructure for disaster preparedness, (ii) limited response capacities, (iii) lack of capacity within the HPSDMA and the DDMAs, and (iv) limited budgetary resources to fund disaster preparedness as well as response.

The State recognizes that addressing these weaknesses and transitioning to a holistic DRR framework requires transformation on multiple fronts. GoHP also recognizes that it is important to integrate climate, gender aspects, and ensure institutionalization of the changes in the long-term. The Theory of Change addresses these concerns by envisaging interventions across the disaster management cycle and additionally through strengthening the policy and institutional framework around disaster governance. Accordingly, the Program will focus on the following Result Areas/Components:

- **Result Area 1:** Enhancing disaster risk governance, through improved institutional capacities, risk understanding and knowledge management.
- **Result Area 2:** Strengthening disaster preparedness, through effective early warning systems and better emergency response capacities.
- **Result Area 3:** Supporting mitigation measures, including eco-DRR and nature-based solutions.

The Program Theory of Change (*see Exhibit 1: Program Theory of Change*) shows how the Program interventions are linked to Intermediate Results and ultimately to the Program Outcomes, towards realizing the Program Objective and Goal. *Table 2: Program Results Chain* shows the complete Program Results Chain, including the Intermediate Result and Outcome Indicators.

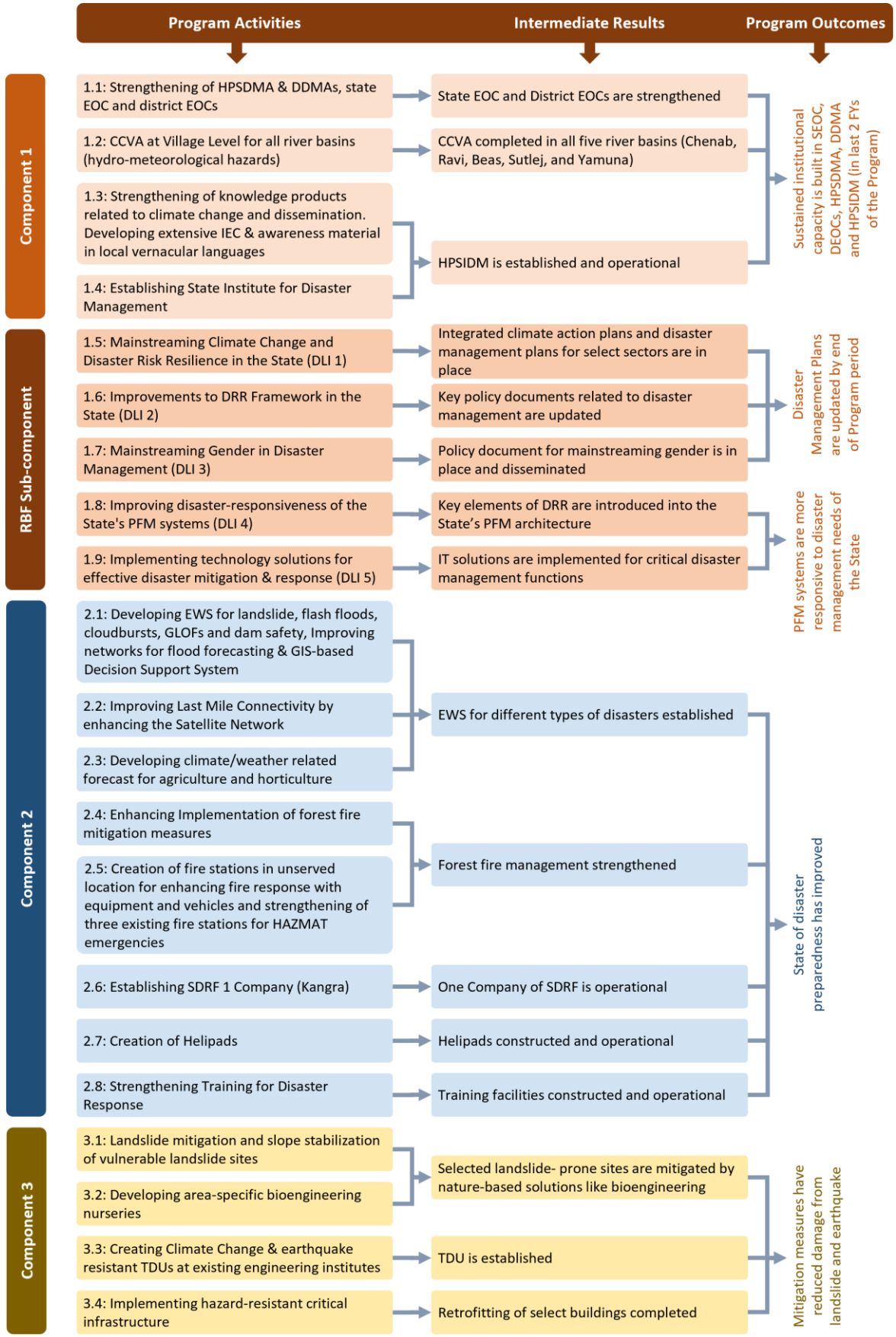


Exhibit 1: Program Theory of Change

Table 2: Program Results Chain

Program Goal:

"Increased disaster and climate resilience among State systems and local communities in Himachal Pradesh."

Program Objective:

"To transition to a holistic disaster and climate risk reduction framework through resilient infrastructure and improved governance."

Results Chain:

Activities	Baseline	Intermediate Results (IR)	IR Indicators	Outcomes	Outcome Indicators (OI)
Result Area/ Component 1: Enhancing disaster risk governance, through improved institutional capacities, risk understanding and knowledge management.					
1.1: Strengthening of HPSDMA & DDMAs, State EOC and District EOCs	State EOC has 8 EOC and 4 ERSS[2] staff and each District EOC has 8 people on an average with minimal infrastructure.[3] Technical and administrative staff strength at HPSDMA is 12 and at each DDMA is 2.[4]	State EOC and District EOCs are strengthened.	IR1: State EOC and District EOCs are staffed and well-equipped	Sustained institutional capacity is built in State EOC, District EOCs, HPSDMA, DDMAs, and HPSIDM.	OI1: State has created budget provision for continued operation of State and District EOCs, HPSDMA, DDMAs, and HPSIDM (in last two FYs of the Program)
1.2: Climate Change Vulnerability Assessment (CCVA) at Village Level for all river basins (hydro-meteorological hazards)	CCVA completed in Sutlej and Beas at AR-4[5] level.[6]	CCVA completed in all five river basins (Chenab, Ravi, Beas, Sutlej, and Yamuna).	IR2: CCVA reports prepared and accepted		

[2] Emergency Response Support System
[3] Source: HPSDMA
[4] ibid
[5] 4th Assessment Report of the Intergovernmental Panel on Climate Change
[6] ibid

Activities	Baseline	Intermediate Results (IR)	IR Indicators	Outcomes	Outcome Indicators (OI)
1.3: Strengthening of knowledge products related to climate change and dissemination. Developing extensive Information Education and Communication (IEC) & awareness material in local vernacular languages	10 booklets developed/updated at various points of time are available on HPSDMA website.[7] There is no structured mechanism for dissemination. Disaster related knowledge management is not institutionalized.	HPSIDM is established and operational.	IR3: HPSIDM has run at least two batches of certificate courses and has imparted 250 person-days of training by end of the Program		
1.4: Establishing State Institute for Disaster Management					
Results-based Financing (RBF) Sub-component					
1.5: Mainstreaming Climate Change and Disaster Risk Resilience in the State (DLI1)	Policies and guidelines (for instance in flood prevention, landslide mitigation, dam safety) do not fully integrate disaster risk resilience and climate change aspects.	Integrated climate action plans and disaster management plans for select sectors are in place.	IR4: Gram Panchayat Development Plan (GPDP) including climate action and disaster planning aspects is prepared and approved for Manikaran, Rangway & Palchan Gram Panchayats (DLI1Y2) IR5: Divisional and State Forest Fire Management Plans are prepared and approved (DLI1Y3) IR6: City Climate Action Plan (CCAP) is prepared and approved for Chamba (DLI1Y4)	Disaster Management Plans are updated by end of Program period.	OI2: State Disaster Management Plan updated and approved (DLI2Y4)
1.6: Improvements to Disaster Risk Reduction (DRR) Framework in the State (DLI 2)	The SDMP was last updated in 2020, DDMPs were last updated in 2017. HP Disaster Management and Relief Manual was last updated in 2012. Several	Key policy documents related to disaster management are updated.	IR7: Updated HP Disaster Management and Relief Manual notified (DLI2Y2)		

[7] Covering snow avalanche, cold wave, earthquake, fire, flood, lightning, road accident, locust attack, IEC material on Search and Rescue Operations, and Awareness Material. Source: https://hpsdma.nic.in/index1.aspx?lsid=170&lev=2&lid=165&langid=1

Activities	Baseline	Intermediate Results (IR)	IR Indicators	Outcomes	Outcome Indicators (OI)
	climate change and biodiversity management studies have been conducted but there is no repository of findings and recommendations.[8]		IR8: Knowledge repository for climate change and biodiversity management developed (DLI2Y3) IR9: All 12 District Disaster Management Plans updated and approved (DLI2Y3)		
1.7: Mainstreaming Gender in Disaster Management (DLI3)	No guidance/ policy document on gender inclusivity in disaster management.	Policy document for mainstreaming gender is in place and disseminated.	IR10: Diagnostic study on hindrances in mainstreaming gender in disaster management completed and recommendations accepted (DLI3Y1) IR11: Guidelines for mainstreaming gender in disaster management issued (DLI3Y2) IR12: At least 10 workshops held across the State for dissemination of the Guidelines (DLI3Y4) IR13: Notification of a policy document on inclusion of women in various departments of disaster management (e.g., in HPSDMA, DDMA, HPSIDM, SDRF, etc.) (DLI3Y5)		
1.8: Improving disaster-responsiveness of the State's Public Finance Management (PFM) systems (DLI4)	Key elements of DRR are not integrated into PFM policies and practices.	Key elements of DRR are introduced into the State's PFM architecture.	IR14: DRR-PFM diagnostic study completed, and recommendations accepted (DLI4Y1) IR15: At least two policy-level recommendations of the DRR-PFM diagnostic study implemented (DLI4Y3)	PFM systems are more responsive to disaster management needs of the State.	OI3: Emergency Procurement Guidelines notified (DLI4Y2)

[8] Source: HPSDMA

Activities	Baseline	Intermediate Results (IR)	IR Indicators	Outcomes	Outcome Indicators (OI)
1.9: Implementing technology solutions for effective disaster mitigation and response (DLI5)	Presently, IT solutions are not available for critical disaster management functions (except for water level monitoring by Dam Authority and CWC, and Weather forecast by IMD).	IT solutions are implemented for critical disaster management functions.	IR16: Functional and Software Requirement Specifications signed off for: - Disaster Management Plans Monitoring System (DMPMS) - Tourist/Pilgrim Management System - Spatially-integrated Hazard Vulnerability and Household Information System (DLI5Y2) IR17: DMPMS implemented (DLI5Y3) IR18: Tourist/Pilgrim Management System implemented (DLI5Y4) IR19: Spatially integrated Hazard Vulnerability and Household Information System implemented (DLI5Y5)	-	-
Result Area/ Component 2: Strengthening disaster preparedness, through effective early warning systems and better emergency response capacities.					
2.1: Developing Early Warning System (EWS) for landslide, flash floods, cloudbursts, Glacial Lake Outburst Flooding (GLOF) and dam safety, Improving networks for flood forecasting & Geographical Information System (GIS)-based Decision Support System	EWS for landslide is being piloted. EWS for flood forecasting and dam safety need improvement. No EWS for GLOFs and earthquakes.	EWS for different types of disasters established.	IR20: GIS based Decision Support System operational	State of disaster preparedness has improved.	OI4: 5-year moving average of annual losses due to landslide, flash floods, and road accidents combined shows a declining trend over the Program period (from INR 1,907
2.2: Improving Last Mile Connectivity by enhancing the Satellite Network					

Activities	Baseline	Intermediate Results (IR)	IR Indicators	Outcomes	Outcome Indicators (OI)
2.3: Developing climate/weather related forecast for agriculture and horticulture					crores for calendar years 2018 to 2022).[9] OI5: State has established or has prepared a blueprint and allotted budget for at least two more SDRF Companies (in addition to Kangra) OI6: Average time to reach unserved locations has decreased by 75% OI7: 1% of the State's population trained as volunteers for disaster response
2.4: Enhancing Implementation of forest fire mitigation measures	743 forest fire lines and zero crew stations are in place.[10]	Forest fire management strengthened.	IR21: Fire cum emergency response stations established and equipped in 5 locations across the state		
2.5: Creation of fire stations in unserved location for enhancing fire response with equipment and vehicles and strengthening of three existing fire stations for HAZMAT emergencies					
2.6: Establishing SDRF 1 Company (Kangra)	State does not have a SDRF.	One Company of SDRF is operational.	IR22: SDRF Company established in Kangra with required manpower and equipment		
2.7: Creation of Helipads	Average time to reach unserved locations is 8 to 10 hours.[11]	Helipads constructed and operational.	IR23: Operational clearance obtained for helipads at 31 locations		
2.8: Strengthening Training for Disaster Response	Training conducted for a few hundred civil defence personnel. No facility for training civil volunteers. 0.2% of the State's population trained as volunteers for disaster response.[12]	Training facilities constructed and operational.	IR24: Continuous trainings of Civil Defence volunteers		
Result Area/ Component 3: Supporting mitigation measures, including eco-DRR and nature-based solutions.					

[9] Source: HPSDMA
[10] ibid
[11] ibid
[12] Source: HPSDMA. 15,000 volunteers trained compared to State population of 68.65 lakhs as per 2011 Census

Activities	Baseline	Intermediate Results (IR)	IR Indicators	Outcomes	Outcome Indicators (OI)
3.1: Landslide mitigation and slope stabilization of vulnerable landslide sites	675 of the landslide prone sites are near critical infrastructure and habitations.[13]	Selected landslide-prone sites are mitigated by nature-based solutions like bioengineering.	IR25: 11 sites are mitigated for landslides and bioengineering field works initiated	Mitigation measures have reduced damage from landslide and earthquake.	OI8: No instances of further landslide in 5 of the 11 mitigated sites (in last two years of the Program)
3.2: Developing area-specific bioengineering nurseries					
3.3: Creating Climate Change & earthquake resistant Technology Demonstration Units (TDUs) at existing engineering institutes	30,000 buildings in Red Zone require special retrofitting out of the 30 lakh constructions.[14]	TDU is established.	IR26: TDUs are operational and are providing training to students, masons, builders etc.		
3.4: Implementing hazard-resistant critical infrastructure		Retrofitting of select buildings completed.	IR27: 40 selected buildings are retrofitted		

[13] Source: HPSDMA
[14] ibid

2.5 Program Budget Support

Program Budget Support (PBS) is determined to be the most appropriate financing instrument for AFD's support. PBS provides more freedom to align the Program design to GoHP's strategic priorities and adapt Program implementation to changing needs. PBS is expected to result in stronger ownership among Program stakeholders since it does not bind them to a fixed set of interventions and a rigid implementation strategy. It also allows GoHP to dovetail the Program with other Central and State-funded Programs with similar objectives, and thus better leverage AFD's financing. Under PBS, GoHP would pre-finance Program expenditure through the State budget – this ensures better integration of the Program into GoHP's regular budget execution cycle.

Under this PBS, a portion of AFD's support would be extended under results-based financing (RBF). Under RBF, AFD financing would be tied to achievement of pre-agreed results and not to underlying expenditure. RBF encourages borrowers to undertake high-impact, low-cost policy, and institutional development actions complementary to the Program Goal and Objective. The Program Results Chain identifies five Program Activities under Component 1 that would be supported under RBF along with the desired results and result indicators that will be used.

3 Program Scope and Interventions

Program interventions are aligned to the strategic direction established by the overall policy priorities of GoHP related to disaster management. In all, 16 investment Projects that include infrastructure investments and institutional development actions, and five policy actions under RBF are envisaged with a total outlay of EUR 100.2 million (INR 891.8 crores). Projects/Activities were selected based on detailed concept notes prepared and were finalized following a consultative approach involving multiple departments of GoHP as well as select central government agencies.[15] *Table 3: List of Projects/Activities* lists the proposed Projects/Activities and is followed by an overview of each Project/Activity.

Table 3: List of Projects/Activities

Program Components and Projects/Activities		Estimated Cost		Implementing Agency	Alignment with SDMP (relevant Section)
		EUR Mn	INR Cr		
Component 1: Enhancing disaster risk governance, through institutional capacities, risk understanding and knowledge management/dissemination					
1.1	Strengthening of HPSDMA & DDMAs, State Emergency Operation Centre (EOC) and District EOCs	7.0	61.9	Disaster Management Cell (DMC)	5.3 & 5.5
1.2	Climate Change Vulnerability Assessment (CCVA) at Village level	1.5	13.4	Department of Environment, Science, Technology & Climate Change (DEST&CC)	2
1.3	Strengthening of knowledge products related to climate change and dissemination	1.0	8.5	DEST&CC	2.11
1.4	Establishing State Institute for Disaster Management	3.3	28.9	DMC	5.3
RBF Sub-component of Component 1					
1.5	Mainstreaming Climate Change and Disaster Risk Resilience in HP	4.0	35.6	DMC	-
1.6	Improvements to DRR Framework in the State	2.5	22.3	DMC	-
1.7	Mainstreaming Gender in Disaster Risk Resilience in HP	2.0	17.8	DMC	-
1.8	Disaster responsive PFM systems	2.5	22.3	DMC	-
1.9	IT solutions for effective disaster mitigation and response	4.0	35.6	DMC	-
	Estimated Cost for Component 1	**27.9**	**246.2**		
Component 2: Strengthening disaster preparedness, through effective early warning systems and better emergency response capacities					
2.1	Developing Early Warning System (EWS) for landslide, flash floods, cloudbursts, glacial	13.5	120.2	*Nodal Agency* - Central Water	4.6 and 5.4

[15] Two 2-day consultative workshops were held as part of Program preparation.

Program Components and Projects/Activities		Estimated Cost		Implementing Agency	Alignment with SDMP (relevant Section)
		EUR Mn	INR Cr		
	lake outburst floods (GLOF) and dam safety, Improving networks for flood forecasting and Geographical Information System (GIS)-based Decision Support System (DSS)			Commission (CWC) *Other IAs* – Dept. of Energy, Aryabhatta Geo-informatics & Space Application Centre (AGiSAC) Himachal Pradesh Council for Science, Technology and Environment (HIMCOSTE), Himachal Pradesh Power Corporation Limited (HPPCL) Himachal Pradesh Public Works Department (HPPWD), Bhakra Beas Management Board (BBMB)	
2.2	Improving Last Mile Connectivity by enhancing the Satellite Network	0.4	3.7	DMC	5.9
2.3	Developing climate/weather related forecast for agriculture and horticulture	4.6	40.9	*Nodal Agency* – Indian Meteorological Department (IMD) *Other IAs* – Dept. of Agriculture and Farmers Welfare, Dept. of Horticulture, AGiSAC	5.4
2.4	Enhancing implementation of forest fire mitigation measures	4.9	43.2	Himachal Pradesh Forest Department (HPFD)	5.4
2.5	Establishment of Fire and Emergency Response cum Training Centres in unserved locations in the state	6.5	57.9	Fire Services Department	5.5 and 3.10

Program Components and Projects/Activities		Estimated Cost		Implementing Agency	Alignment with SDMP (relevant Section)
		EUR Mn	INR Cr		
2.6	Establishing a State Disaster Response Force (SDRF) Company	12.4	110.1	Police (State Disaster Response Force - SDRF)	6.3
2.7	Establishment of helipads for emergency response	2.5	22.3	Dept. of Tourism and Civil Aviation and HPPWD	5.13
2.8	Strengthening of existing Training Centres	1.1	10.1	Civil Defence and Home Guards Dept.	5.9
Estimated Cost for Component 2		**45.9**	**408.3**		
Component 3: Supporting mitigation measures, including eco-DRR and nature-based solutions					
3.1	Mitigation and Slope Stabilization of Vulnerable Landslide Sites	8.7	77.4	HPPWD	3.7
3.2	Area-specific Bioengineering Nurseries and Interventions	3.4	30.1	HPFD	3.7
3.3	Creating Climate Change & earthquake resistant Technology Demonstration Units (TDUs) at existing engineering institutes	4.7	41.8	DMC	3.5, 3.6, 3.8 and 3.10
3.4	Implementing Hazard resistant critical infrastructure	4.5	40.4	DMC	3.5
Estimated Cost for Component 3		**21.3**	**189.7**		
Program Management Cost		5.4	47.6		
Grand Total		***100.2***	***891.8***		

Annex 1: Multi-year Program Expenditure Framework gives the Multi-year Program Expenditure Framework (PEF) with estimated breakdown of expenditure by year of implementation, by Budget Lines, and by Procurement type.

3.1 Component 1: Enhancing disaster risk governance, through institutional capacities, risk understanding and knowledge management/dissemination.

Project 1.1: Strengthening of HPSDMA & DDMAs, State Emergency Operation Centre (EOC) and District EOCs

This Project focuses on strengthening the state disaster management infrastructure. Presently, the HPSDMA & DDMAs have limited space and infrastructure. Under this Project, construction of one building for HPSDMA and State EOC and 6 buildings housing 6 DDMAs and district EOCs are proposed. In Year 1, detailed project reports (DPR) will be prepared, and construction will commence from the second year. National and International level exposure visits for experts and training programmes for HPSDMA and DDMA personnel will also be organized as part of this Project.

While establishing HPSDMA and DDMA buildings, it will be ensured that the sites are not hazard-prone. A policy of zero displacement and minimum temporary income loss of local people will be followed. Facilities will be designed to ensure gender-sensitivity and accessibility to people with special needs. Buildings will be energy-efficient and designed in accordance with Griha V2019 minimum 4STAR ratings. Site-specific construction Environment & Social Management Plan (ESMP), including waste and traffic management plan, will be prepared in line with the Program Environment and Social Management Framework (ESMF). The Disaster Management Cell (DMC) is the implementing agency for this Project. This Project is aligned with Sections 5.3 & 5.5 of SDMP.

Project 1.2: Climate Change Vulnerability Assessment (CCVA) at Village level

This Project concentrates on CCVA at village-level for Beas and Sutlej River basins covering hydro-meteorological hazards. The CCVA for Beas and Sutlej, earlier conducted in accordance with the Fourth Assessment Report (AR4), is required to be updated to the Fifth Assessment Report (AR5)[16] in line with the emerging developments in climate science. The Assessment will begin in the first year of the Program and take three years to complete. It will incorporate social and gender aspects along with anticipated environmental impacts. Following activities are included:

1. Field visits, primary & secondary data collections.
2. Hydrological & Climate Change Modelling.
3. Assessment of climate change hazard scenarios (short-term, medium-term, and long-term) for the region based upon historical information on all major hazard events over the past with focus on Agriculture/Horticulture/Forests and Water sectors.
4. CCVA as per AR5 Report.
5. Mapping, documentation, report preparation, development of CCVA information portal, and publications.

Gender inclusion and community engagement will be integral to the Assessments. Department of Environment, Science Technology & Climate Change (DEST&CC) would be the implementing agency for this Project. This Project is aligned with Section 2.11 of the SDMP.

Project 1.3: Strengthening of knowledge products related to climate change and dissemination.

This Project aims at developing extensive Information Education and Communication (IEC) and awareness material in local vernacular languages. Presently, there are gaps in terms of availability and coverage of knowledge products. This has led to limited production of IEC and awareness material and dissemination within the State. As part of this Project, audio-video modules will be developed for wide distribution. The Project will be initiated in the first year and will take three years to complete. Training and capacity building on climate change resilience will be emphasized along with Information and Communication Technology (ICT) initiatives. Knowledge products would be prepared for people with special needs. Development of knowledge material highlighting roles and involvement of gender in climate change adaptation and dissemination of these through community engagement will be a critical aspect of this component. DEST&CC will be the implementing agency for this Project. A Climate Change Advisory Centre will be established under DEST&CC to prepare all these knowledge products. This Project is aligned with Section 2.11 of SDMP.

[16] Assessment Reports of the Intergovernmental Panel on Climate Change of the United Nations

Project 1.4: Establishing State Institute for Disaster Management

This Project will focus on establishing the State Institute for Disaster Management at the Himachal Pradesh Institute of Public Administration (HIPA). Himachal Pradesh State Institute of Disaster Management (HPSIDM) will be established as an institute for training, research, and design facilities. HPSIDM will focus on enriching capacities of officials and other functionaries of the State and district administration, autonomous institutions, and non-governmental organizations in specific areas of prevention, mitigation, preparedness, relief, recovery, rehabilitation, reconstruction, and sustainable development. In the first year, DPRs for the construction of buildings will be developed. Construction is expected to be complete by Year 3. After that, Human Resource (HR) support will be provided to the institute in the remaining two years. Training would commence from the first year itself. HPSIDM will present a great opportunity to the State to mainstream gender and climate change in disaster management by introducing training modules on these aspects.

The building design would ensure access to people with special needs. During the development and operation phases, a gender action plan will be implemented. Buildings will be energy efficient and designed in accordance with Griha V2019 minimum 4STAR ratings. Project-specific construction phase ESMPs, including plans for managing waste and traffic, in accordance with the Program ESMF will be implemented. DMC is the implementing agency for this Project. This Project is aligned with Section 5.3 of SDMP.

3.2 Component 2: Strengthening disaster preparedness, through effective early warning systems and better emergency response capacities.

Project 2.1: Developing Early Warning System (EWS) for landslide, flash floods, cloudbursts, glacial lake outburst floods (GLOF) and dam safety, Improving networks for flood forecasting and Geographical Information System (GIS)-based Decision Support System (DSS)

This Project intends to develop EWS for various types of natural disasters endured by the State as well as improve the networks for flood forecasting system. A GIS-based DSS will leverage these EWS and forecasts to deliver timely and effective disaster response plans. Project activities include micro-level multi-hazard data collection and integrating the data with EWSs and developing a GIS-based effective DSS for these hazards. 10 GLOF sensors at water level/bottom Level and 30 Flood sensors will be installed. There will be training and exposure visits for the experts.

Climate change-induced hazards will also be incorporated into the proposed EWS. A participatory approach will be adopted during implementation, involving local community in the process, and imbibing a sense of ownership of these systems. E&S aspects will be scrutinized in the installation of these systems. Central Water Commission (CWC) is the nodal implementing agency. Department of Energy, Aryabhatta Geo-informatics, and Space Application Centre (AGiSAC), Himachal Pradesh Council for Science Technology and Environment (HIMCOSTE), Himachal Pradesh Power Corporation Limited (HPPCL), Himachal Pradesh Public Works Department (HPPWD), and Bhakra Beas Management Board (BBMB) are the other implementing agencies. This Project is aligned with Section 5.4 of SDMP.

Project 2.2: Improving Last Mile Connectivity by enhancing the Satellite Network

This Project focuses on improving last mile connectivity by procuring mobile satellite phones to address the inadequate coverage in remote locations, particularly during disasters. Terrestrial cellular antennas and infrastructures normally get damaged during natural calamities. Even in normal situations, in remote locations, these fail to work properly due to limited coverage. Mobile satellite phones can solve this issue, and hence are a suitable option for remote communication during natural catastrophes. DMC is the implementing agency. The Project is aligned with Section 5.3 of SDMP.

Project 2.3: Developing climate/weather related forecast for agriculture and horticulture

This Project aims at expanding the network of weather stations, real-time observatories, and digitization of administrative boundaries as well as implementation of polygon-based warning system for farmers. It intends to improve the weather forecast based Agromet advisory provided to farmers by establishing automatic weather stations including rain gauges up to block level so that the Agromet Advisory Services (AAS) are more crop and location specific. The needs of the farming community will be ascertained based on the information requirements of diverse groups of end-users. The Project will be a step towards development of weather information-based crop/livestock management strategies and operations dedicated to enhancing crop production and food security. The local community will be involved in dissemination of these forecasts at the household level.

Indian Meteorological Department (IMD) is the nodal implementing agency. Department of Agriculture and Farmers Welfare, Department of Horticulture, AGiSAC and HIMCOSTE are the other implementing agencies. This Project is aligned with Section 5.4 of SDMP.

Project 2.4: Enhancing implementation of forest fire mitigation measures

Vast areas of forest in Himachal Pradesh are vulnerable to forest fires. Chir pine (*Pinus roxburghii*) forests, which are most fire prone, occupy an area of approximately 1,259 sq.km in the State.[17] Forest fires cause considerable damage to the ecosystem services, wildlife, regeneration, livelihoods, and biodiversity. Prevention and control of forest fire requires a multi-pronged and resource intensive strategy. This Project will augment the resource availability at field-level to enhance the capacity of the Himachal Pradesh Forest Department (HPFD) and communities to respond to forest fire management issues.

Project activities include maintenance of fire-lines, establishing forest fire crew / rapid response team stations, procurement and deployment of tools and equipment, training, exposure visits and awareness, establishment of wireless communication network, Improvement of moisture regime in highly vulnerable forests, spring shed development, clearing of fire strip along roadside, and community incentives. A participatory approach will be taken during implementation involving the local communities, especially women, in the process. Himachal Pradesh Forest Department (HPFD) is the implementing agency. The Project is aligned with Section 5.9 of SDMP.

[17] Source: Department of Forest, GoHP

Project 2.5: Establishment of Fire and Emergency Response cum Training Centres in unserved locations in the state

The Fire Department is typically the first to respond to emergencies, including natural disasters such as wildfires, earthquakes, hurricanes, floods, and tornadoes. This Project aims to protect life and property from fire and other calamities at five unserved locations within the state. Project activities include construction of five new fire station cum demonstration centres along with purchase of Fire Fighting / Hazardous material (HAZMAT) emergency vehicles with equipment for three existing fire stations. The new buildings' location will be selected in accordance with project exclusion criteria specified in the Program ESMF. These buildings will be energy-efficient and designed in accordance with Griha V2019 minimum 4STAR ratings. Project-specific construction phase ESMPs, including plans for managing waste and traffic, will be implemented in accordance with the Program ESMF. Department of Fire is the implementing agency. The Project is aligned with Section 5.5 and Section 3.10 of SDMP.

Project 2.6: Establishing a State Disaster Response Force (SDRF) Company

At the State level, the SDRF plays a crucial role in disaster management and response. The establishment of a dedicated SDRF enhances preparedness and ensures a proactive and efficient response to disasters, thereby strengthening the State's capacity for disaster management. Project activities include construction of a building for SDRF along with procurement of necessary equipment at the identified location in Kangra. The building design would ensure access to people with special needs. During the development and operation phases, a gender action plan will be implemented. Buildings will be designed with Griha V2019 4STAR certification for energy efficiency. Project-specific ESMPs, including traffic and waste management strategies, will be put into practice in accordance with the Programme ESMF. Department of Police (SDRF) is the implementing agency for this Project. This Project is aligned with Section 5.4 of SDMP.

Project 2.7: Establishment of helipads for emergency response

The objective of this Project is to facilitate efficient and effective emergency response, ensuring timely assistance and support to those affected by disaster. Helipads in disaster-prone areas would enable emergency medical evacuation, search and rescue operations, deployment of emergency personnel and supplies, situational assessment and aerial surveys, coordination and logistics, rapid damage assessment, and reconnaissance. 31 locations have been identified for establishing the helipads. These locations will be finalised in accordance with project exclusion criteria specified in the Program ESMF. Department of Tourism and Civil Aviation is the nodal implementing agency and HPPWD is the other implementing agency. This Project is aligned with Section 5.13 of SDMP.

Project 2.8: Strengthening of Existing Training Centres

This Project aims at strengthening training centres for disaster response. The improvement of existing five training centres for civil defence will be carried out under the Project. Civic volunteers (targeted at 1% of the population of the State by the end of the Program period) would be trained at these centres in response to natural disasters. The Project presents a great opportunity to the State to involve and train women in disaster response. Department of Civil Defence and Home Guards is the implementing agency. This Project is aligned with Section 5.9 of SDMP.

3.3 Component 3: Supporting mitigation measures, including eco-DRR and nature-based solutions

Project 3.1: Mitigation and Slope Stabilization of Vulnerable Landslide Sites

Himachal Pradesh has witnessed a six-fold increase in major landslides in two years with 117 in 2022 as compared to 16 in 2020.[18] High intensity rainfall coupled with cutting of hill slopes or rocks at the foothills are the main reasons behind the significant number of landslides. There are 675 landslide-prone sites in the State near critical infrastructure and habitations. 11 sites with highly concentrated landslide instances have been identified for mitigation activities under this Project. Various slope stabilization and landslide mitigation measures involving bio-engineering and structural interventions will be implemented as per the DPRs available. Inclusion of local community and women in these activities will be one of the key aspects in this Project. HPPWD is the implementing agency. This Project is aligned with Section 3.7 of SDMP.

Project 3.2: Area-specific Bioengineering Nurseries and Interventions

Bioengineering is known to increase the effective life of engineering structures in hilly terrains. It involves the use of a variety of plants in combination with civil engineering structures for protection purposes. It is related to land and soil stabilization by catching and preventing the soil from erosion, forming a protective cover, reinforcing by increasing shearing strength, anchoring the failure planes, and draining excess runoff. Project activities would include strengthening forest nurseries for production of bed & tall plants, raising bed & tall plants in nurseries, bioengineering field works including geotextile application, and restoration of riparian and stream bank ecosystem. Inclusion of women in these activities, particularly nursery development, will be one of the key aspects in this Project. HPFD is the implementing agency. The Project is aligned with Section 3.7 of SDMP.

Project 3.3: Creating Climate Change & earthquake resistant Technology Demonstration Units (TDUs) at existing engineering institutes

New structures designed with earthquake-resistant construction techniques will serve as TDUs. Using the TDU, awareness programmes will be organized for beneficiaries by demonstration and showcasing of live and animated working models. The site for this Project has been identified in Sundernagar. The design of the TDU would ensure that local community is not adversely impacted due to vibration. Further, access will be provided for people with special needs. During the development and operation phases, a gender action plan will be implemented. Project-specific ESMPs, including traffic and waste management strategies, will be put into practice in accordance with the Program ESMF. DMC is the implementing agency. The Project will be implemented in collaboration with Jawaharlal Nehru Government Engineering College, Sundernagar (JNGEC). This Project is aligned with Section 3.5, 3.6, 3.8 and 3.10 of SDMP.

[18] Source: HPSDMA

Project 3.4: Implementing Hazard-resistant critical infrastructure

Safety audits were conducted by the HPSDMA, and mitigation measures were suggested for 40 schools and hospital buildings in the DPR. Retrofitting of 40 buildings, for which DPRs are available, will be undertaken under this Project. Seismic retrofitting of these buildings includes modification of existing structures to make them more resistant to seismic activity, ground motion and soil failure due to earthquakes. Seismic retrofit strategies like the addition of cross braces, new structural walls, using of base isolation systems, using advanced materials (e.g., fibre-reinforced polymers, fibre-reinforced concrete, and high strength steel) etc. will be used on a case-by-case basis. DMC is the implementing agency. This Project is aligned with Section 3.5 of SDMP.

Annex 2: Detailed Technical Assessment of Components and Projects gives a detailed technical assessment of each of the 16 investment Projects discussed above.

3.4 RBF Sub-component of Component 1

Activity 1.5: Mainstreaming Climate Change and Disaster Risk Resilience in HP

Presently, policies and guidelines (for instance in rural and urban planning, flood prevention, landslide mitigation, dam safety) of GoHP do not fully integrate disaster risk resilience and climate change aspects. This Activity aims to develop integrated climate action and disaster management plans (DMP) in the rural, forest, and urban sectors, to limit and adapt to climate change. The objective is aligned to Sustainable Development Goal (SDG) 13-Climate Action as well as the SDMP. Results under this Activity would include:

- In year 2, preparation of climate action and disaster integrated Gram Panchayat Development Plans (GPDP) for three Gram Panchayats: Manikaran - a tourist hub, Palchan - forest fire prone and Rangway - avalanche prone areas.
- In year 3, preparation of Forest Fire Management Plans for three Divisions and for the State as a whole. The Plans would forest fire include management strategies and practices including involvement of local community and women, capacity of the stakeholders, fire management planning with cost-benefit analysis, as well as damages and impacts of forest fires.
- In year 4, development of a City Climate Action Plan (CCAP) for Chamba town, which will include a framework for identifying and implementing climate actions within developmental plans and policies to reduce greenhouse gas (GHG) emissions, adopt low emission development trajectories and increase climate resilience through involvement of gender.

The GPDPs and CCAPs shall specifically address engagement of local community and inclusion of gender aspects. Developed as pilots under the Program, results of this Activity will pave the way for climate and disaster-integrated development planning in the State. The DMC would work closely with the HPFD, Panchayati Raj Department, and Municipal Council of Chamba in achieving the results.

Activity 1.6: Improvements to Disaster Risk Reduction (DRR) Framework in the State

The SDMP (last updated in 2020), DDMPs (last updated in 2017), and the HP Disaster Management and Relief Manual (last updated in 2012) are due for an update. Further, several climate change and biodiversity management studies have been conducted in the State, but there is no repository of

findings and recommendations. This Activity aims to result in an update to the above policy documents governing disaster management in the State and develop a resource hub of various knowledge products. Key results would include:

- In year 2, a comprehensive update of the HP Disaster Management and Relief Manual. The updated Manual will, amongst other things, include gender aspects and Emergency Procurement Guidelines formulated under Activity 1.8.
- In year 3, development of a knowledge repository for climate change and biodiversity management, which will be a database of general and site-specific studies on climate and biodiversity management conducted in the past, as well as future studies related to the core themes of climate action and disaster management. This would be in line with Section 5.1.5 of the SAPCC, which puts emphasis on the lack of database on climate and biodiversity management.
- In years 4 and 5, updates to all 12 DDMPs and finally the SDMP, will be undertaken. The SDMP and DDMPs need to be updated to include gender aspects; people with special needs; preparation for recovery from major natural catastrophes; measures to ensure safety of life; protection of environment; and recovery of lost or damaged records or information after a disaster. The updated DMPs would also include a work plan to address common areas of action between the DMPs and the SAPCC.

Alignment with the SAPCC would be an important consideration so that the updated policy framework lays a future roadmap for climate-integrated disaster management. The DMC would work with the DEST&CC and HIMCOSTE for implementing this Activity.

Activity 1.7: Mainstreaming Gender in Disaster Management

Presently, there is no guidance document covering gender inclusivity in disaster management in HP. This Activity would aim to adopt gender-sensitive policies and actions across the disaster management cycle. Key results would include:

- In year 1, a diagnostic study on hindrances in mainstreaming gender in disaster management, which will study the present status and come up with recommendations based on national and international frameworks and best practices.
- In year 2, formulation of Guidelines for Mainstreaming Gender in Disaster Management, which will draw upon the recommendations of the diagnostic study and include gender-inclusive assessments and gender design elements in strengthening disaster resilience and disaster recovery.
- In year 3 and 4, dissemination of the Guidelines and good practices through a series of workshops and outreach events covering government officials, local citizen groups, non-governmental organizations, and the general public across all districts in the State.
- In year 5, based on the feedback of the workshops and outreach events, notification of a policy document on gender mainstreaming in disaster management. The policy document must cover different disaster management functions like planning and management (HPSDMA, DDMA), training (HPSIDM), and response (SDRF). The policy document will, at a minimum, specify measures to increase women workforce participation in the Program implementing departments and the newly proposed institutions, cover trainings on

mitigation and response focusing on rural women communities, and require dissemination of disaster management teaching modules in schools and universities to encourage early adoption of disaster management as a career choice among women.

The DMC would work with the Women and Child Development Department, Education Department, and Administrative Reforms Department for various aspects of this Activity.

Activity 1.8: Improving disaster-responsiveness of the State's Public Finance Management (PFM) system.

Presently, key elements of DRR are not integrated into PFM policies and practices in HP. This Activity would aim to strengthen the State's PFM architecture to enable enhanced disaster-resilience, relying upon the DRR-PFM Toolkit released by the World Bank.[19] Concept and features of DRR-PFM are covered in *Section 8: Disaster Resilient and Responsive Public Financial Management*. Key results include:

- In year 1, undertaking a DRR-PFM diagnostic study to identify gaps in the State's PFM systems with reference to the DRR-PFM Toolkit and come up with policy and process recommendations to implement the DRR-PFM framework.
- In year 2, issuance of Emergency Procurement Guidelines governing policies and procedures for procurement in times of disasters and other emergencies. The Guidelines will lay down the underlying circumstances necessitating emergency procurement, the delegation of financial powers, relaxations from normal procurement procedures, and the related internal and audit controls.
- In year 4, implementation of any two policy-level recommendations of the diagnostic study as decided by the Finance Department in consultation with the DMC.

The DMC would work with the Finance Department and Planning Department in undertaking initiatives under this Activity.

Activity 1.9: Implementing technology solutions for effective disaster mitigation and response

Usage of information technology (IT) solutions for critical disaster management functions is at a nascent stage in HP. The objective of this Activity would be to improve the responsiveness, efficiency, and effectiveness of disaster management capability in the State through the implementation of IT solutions. Results include:

- In year 2, closing out on key requirements and an implementation plan for three software applications, namely, a Disaster Management Plans Monitoring System (DMPMS), a Tourist/Pilgrim Management System, and a Spatially Integrated Hazard Vulnerability and Household Information System.
- In year 3, implementing the DMPMS, which would enable updating of action taken against SDMP, DDMPs and Departmental DMPs, and provide dashboards for monitoring progress at different levels.

[19] https://documents.worldbank.org/en/publication/documents-reports/documentdetail/403941645736502355/disaster-resilient-and-responsive-public-financial-management-an-assessment-tool

- In year 4, implementing the Tourist/Pilgrim Management System, which would facilitate registration of tourists and tracking of tourist movement across key tourist spots/ pilgrimage centres. The solution would provide critical tourist position and movement data for emergency rescue and relief operations.
- In year 5, implementing a spatially integrated Hazard Vulnerability and Household Information System, which would integrate with the Household Database (e-Parivar) and spatial tools developed under the Program to help identify likelihood of occurrence of various types of hazards in an area and direct prevention and relief activities towards disaster vulnerable and affected households. This will result in proper planning and implementation of disaster response plans.

The above solutions would be developed in-house or through external vendors as appropriate. DMC would closely work with the Department of Tourism and Civil Aviation, Department of Language & Culture, the HPFD, and the Department of IT in implementing these technology solutions.

Table 4: Disbursement Linked Indicator Matrix shows the five Activities under the RBF Sub-component of Component 1, and the corresponding Disbursement Linked Indicators (DLI) along with the annual targets and the corresponding disbursement amounts.

Table 4: Disbursement Linked Indicator Matrix

RBF Activity/ DLI		Objective	Annual DLI Targets and Allocation (in EUR million)					Total
			1	2	3	4	5	
1	Mainstreaming Climate Change and Disaster Risk Resilience in the State (Activity 1.5) Responsibility: DMC in collaboration with the HPFD, Panchayati Raj Department, and Municipal Council of Chamba	To develop integrated climate action and disaster management plans in select sectors to limit and adapt to climate change (SDG 13)		Gram Panchayat Development Plan (GPDP) including climate action and disaster planning aspects is prepared and approved for Manikaran, Rangway & Palchan Gram Panchayats (Note I, ii)	Divisional and State Forest Fire Management Plan are prepared and approved (Note iii)	City Climate Action Plan (CCAP) is prepared and approved for Chamba (Note i, iv)		
		Allocation		***1.0***	***2.0***	***1.0***		***4.0***
Note: (i) The GPDP and CCAP shall cover the relevant Gender and community engagement aspects as well. (ii) The GPDP shall include hazard risk, vulnerability, and capacity analysis; institutional arrangements for disaster management; and disaster specific preventive and mitigation measures. (iii) Divisional and State Forest Fire Management Plans shall include an assessment of damages and impacts of forest fires, fire management strategies & plans with cost-benefit analysis, fire management practices, and capacities of stakeholders. (iv) CCAP should be based on a baseline greenhouse gas (GHG) emission inventory and an urban climate vulnerability assessment. It should include a framework for identifying and mainstreaming climate actions within city development plans, policies to reduce GHG emissions, and strategies to adopt low emission development trajectories and increase climate and disaster resilience.								
2	Improvements to Disaster Risk Reduction (DRR) Framework in the State (Activity 1.6) Responsibility: DMC in collaboration with the DEST&CC and HIMCOSTE	To update key policy documents governing disaster management in the State		Updated HP Disaster Management and Relief Manual notified (Note i)	Knowledge repository for climate change and biodiversity management developed (Note ii)	All 12 District Disaster Management Plans updated and approved (Note iii)	State Disaster Management Plan updated and approved (Note iii)	
		Allocation	***-***	***0.5***	***0.5***	***1.0***	***0.5***	***2.5***

RBF Activity/ DLI		Objective	Annual DLI Targets and Allocation (in EUR million)					Total
			1	2	3	4	5	
Note: (i) The updated HP Disaster Management and Relief Manual shall, amongst other things, cover Gender aspects and Emergency Procurement Guidelines. (ii) The knowledge repository shall host independent and site-specific studies carried out by universities, research institutions and donor agencies on climate and biodiversity linkage. The repository shall be indexed and searchable to inform future biodiversity conservation and strategy development. (Ref: 5.1.5 HP SAPCC). (iii) The District and State Disaster Management Plans shall contain a work plan to address the requirements of HP SAPCC as well.								
3	Mainstreaming Gender in Disaster Management (Activity 1.7) Responsibility: DMC in collaboration with the Women and Child Development Department, Education Department, and Administrative Reforms Department	To adopt gender-sensitive policies and actions across the disaster management cycle	Diagnostic study on hindrances in mainstreaming gender in disaster management completed and recommendations accepted	Guidelines for Mainstreaming Gender in Disaster Management issued (Note i)		At least 10 workshops held across the State for dissemination of the Guidelines (Note ii)	Notification of a policy document on gender mainstreaming in disaster management (Note iii)	
		Allocation	***0.5***	***0.5***	***-***	***0.5***	***0.5***	***2.0***
Note: (i) Guidelines for mainstreaming gender in disaster management should include Gender-Inclusive Assessments, Gender design elements in strengthening disaster resilience and in disaster recovery assistance. (ii) The dissemination workshops/outreach programmes must cover all districts. Duration of each dissemination workshop shall be a minimum of one day. Participants must include government officials, local citizen groups, self-help groups, non-governmental organizations, and the general public. Feedback should be gathered, and consensus must be developed on minimum mandatory inclusion of women in various functions of disaster management. (iii) The policy document on gender mainstreaming in disaster management must cover different functions like planning and management (HPSDMA, DDMA), training (HPSIDM), response (SDRF), etc. it should be developed based on the feedback from the workshops/ outreach programmes. This policy document should, at a minimum, specify measures to increase women participation in workforce of the implementing departments and the newly proposed institutions, cover trainings on mitigation and response focusing on rural women communities, and require dissemination of disaster management teaching modules in schools and universities to encourage early adoption of disaster management as a career choice among women.								

RBF Activity/ DLI		Objective	Annual DLI Targets and Allocation (in EUR million)					Total
			1	2	3	4	5	
4	Improving disaster-responsiveness of the State's Public Finance Management (PFM) systems (Activity 1.8) Responsibility: DMC in collaboration with the Finance Department and Planning Department	To strengthen the State's PFM architecture to enable enhanced disaster resilience	DRR-PFM diagnostic study completed, and recommendations accepted	Emergency Procurement Guidelines notified (Note i)		At least two policy-level recommendations of the DRR-PFM diagnostic study implemented (Note ii)		
		Allocation	***0.5***	***1.0***		***1.0***		***2.5***
Note: (i) The Emergency Procurement Guidelines shall lay down the underlying circumstances for emergency procurement, the delegation of financial powers, procurement methods, relaxations from normal procurement procedures, and the related internal and audit controls. (ii) The two policy recommendations to be implemented shall be in addition to the Emergency Procurement Guidelines covered in Year 2, to be decided by the Finance Department in consultation with the DMC.								
5	Implementing technology solutions for effective disaster mitigation and response (Activity 1.9) Responsibility: DMC in collaboration with the Department of Tourism and Civil Aviation, Department of Language & Culture, the HPFD, and the Department of IT	To improve responsiveness, efficiency, and effectiveness of disaster management capability in the State		Functional and software Requirement Specifications signed off for: - Disaster Management Plans Monitoring System (DMPMS), - Tourist/Pilgrim Management System - Spatially-Integrated Hazard Vulnerability and Household Information System	DMPMS implemented (Note i)	Tourist/Pilgrim Management System implemented (Note ii)	Spatially integrated Hazard Vulnerability and Household Information System implemented (Note iii)	
		Allocation		**1.0**	**0.5**	**0.5**	**2.0**	**4.0**

RBF Activity/ DLI	Objective	Annual DLI Targets and Allocation (in EUR million)					Total
		1	2	3	4	5	
Note: (i) DMPMS would enable updating of action taken against SDMP, DDMP and Departmental DMPs and provide dashboards for monitoring at different levels. (ii) The Tourist/Pilgrim Management System would be developed in collaboration with the following Departments: Tourism and Civil Aviation, Language & Culture, and HPFD. It will facilitate registration of tourists and tracking of tourist movement across key tourist spots/ pilgrimage centres. (iii) The Spatially integrated Hazard Vulnerability and Household Information System would integrate with the Household Database of Rural Development Department (e-Parivar), and spatial tools implemented under the Program, to help direct prevention and relief activities towards disaster vulnerable and affected households.							

3.5 Contingency Early Response

A Contingency Early Response (CER) Component has been included under the Program to cover reconstruction and rehabilitation costs in the event of a major disaster. The objective of the CER Component is to provide liquidity in times of disaster-induced economic shock. This Component would cover major floods, earthquakes, and drought, which cause damage of sufficient severity and magnitude to warrant major disaster assistance to supplement available resources. Activities supported under this Component include measures to support drinking water supply; repairs and restoration of damaged roads and bridges, damaged water supply, and drainage and sewerage works.

CER shall carry a zero allocation in the PEF. The decision to activate the CER Component would lie with the Program Steering Committee (PSC). The approval would be based on the intensity of the disaster,[20] and an estimate of the proposed expenditure towards recovery and reconstruction and the shortfall in funding. DMC would be the implementing agency for CER. The PSC, while according approval for activating the CER, shall specify reallocation of budgets amongst Projects in the PEF, if necessary. Based on the PSC approval, the DMC will submit a request to AFD through the Department of Economic Affairs, Government of India (DEA). At the time of communicating its approval to the CER request, AFD shall also indicate the revised financing pattern, applicable for prospective disbursements. CER funding will be 100% using the Reimbursement Track or as an Advance, as finally decided during loan negotiations. CER expenditure shall be subject to the same utilization reporting and audit arrangements as applicable for regular Program expenditure explained in *Section 6.5: Utilization reporting* and *Section 6.6: Program audit*.

[20] Indicative intensity of a Level 3 disaster as per the National Disaster Management Authority Guidelines

4 Program Expenditure Framework

4.1 Program budget and financing

The Program outlay is estimated at Euro 100 million to be spent over five years, of which AFD will finance Euro 81.9 million. GoHP will finance the balance Euro 18.1 million from the State budget. The financing pattern is shown in *Table 5: Program financing pattern*.

Table 5: Program financing pattern

Source	Amount (in EUR million)	Amount (in INR crore)	Percentage
AFD	81.9	728.6	81.7%
GoHP	18.3	163.2	18.3%
Total	**100.2**	**891.8**	**100%**

AFD's financial assistance shall flow under two independent Disbursement Tracks as shown in *Table 6: Disbursement Tracks*, with the total financing restricted to EUR 81.9 million. Under the Reimbursement Track, GoHP will first incur expenditure from its budget and then claim the corresponding AFD share. Under the RBF Track, which is associated exclusively with the RBF Sub-component of Component 1, AFD disbursements will be against disbursement-linked results established by achievement of Disbursement Linked Indicators (DLI). Program management costs will be fully financed by GoHP.

Table 6: Disbursement Tracks

Disbursement Tracks	Amount (in EUR million)	AFD share of funding (%)	AFD financing (in EUR million)
Reimbursement	79.9	83.7%	66.9
Results-based Financing (RBF)	15.0	100%	15.0
Program Management	5.3	0%	Nil
Total*	**100.2**	**81.7%**	**81.9**

*Amounts are rounded to the nearest single decimal place

Disbursement under the CER Component, if activated, shall be under the Reimbursement Track (with option to release in advance, if decided during loan negotiation) with AFD share of funding at 100%. AFD and GoHP will work out a revised sharing pattern for the undisbursed portion at the time of activating the CER such that the overall AFD financing remains at Euro 81.9 million.

4.2 Multi-year Program Expenditure Framework

Eligible Program expenditures are defined in a Program Expenditure Framework (PEF). The PEF lists the proposed Projects/Activities and their estimated costs. The PEF is used to determine the boundary of eligible Program expenditure at a Program level and not at an individual Project/Activity level. Although the PEF envisages a total expenditure of EUR 100 million, GoHP is encouraged to have a larger Program in order to leverage AFD's funding more effectively. *Table 7: Program Expenditure Framework*

Summary gives a summary of the PEF by Program Components. *Annex 1: Multi-year Program Expenditure Framework* gives the detailed PEF showing the estimated expenditure breakdown over the Program period, by Budget Lines, and by nature of procurement/expenditure (goods, works, services including consultancies and operating costs).

Table 7*:* Program Expenditure Framework Summary

(Amount in EUR million)

Program Components	Estimated Cost	AFD Funding	Funding %
Component 1: Enhancing disaster risk governance, through institutional capacities, risk understanding and knowledge management/dissemination	12.7	10.6	83.7%
RBF Sub-component of Component 1	15.0	15.0	100%
Component 2: Strengthening disaster preparedness, through effective early warning system and better emergency response capacities	45.9	38.5	83.7%
Component 3: Supporting mitigation measures, including eco-DRR and nature-based solutions	21.3	17.8	
Program Management	5.3	-	0%
CER Component	-	-	100%
Total	**100.2**	**81.9**	**81.7%**

*Amounts are rounded to the nearest single decimal place

4.3 Component and Project costs

Program expenditure would be incurred on: (i) Investments in 16 Projects under the three Components (79.7%), (ii) DLI-based Activities under the RBF Sub-component of Component 1 (15.0%), and (iii) Program Management costs (5.3%) Up to 10% of the Program outlay will be available for spending under the CER Component. However, owing to its contingent nature, the CER Component will have a zero allocation in the PEF.

Cost estimates in the PEF are indicative. Estimated costs of proposed investment Projects have been worked out based on concept notes prepared by the respective implementing agencies. More accurate costs are expected to emerge when DPRs are prepared during Program implementation. Estimates of Program Management expenses are based on anticipated resource requirements and expected costs. Allocations to DLIs under the RBF Sub-component of Component 1 are assigned based on a subjective assessment of the relative contribution of the disbursement-linked results to the Program Objective. The allocations, therefore, do not correlate to the underlying expenditure expected to achieve the results. A one-to-one correlation between DLI values and Activities has been shown in the PEF for simpler presentation. The DMC would undertake an annual revision of the PEF to ensure that it stays relevant to changes in the scope of the Program and Projects/Activities during Program implementation.

5 Program Implementation

5.1 Overall Program governance

Overall Program governance will be the responsibility of the Program Steering Committee (PSC) and the Program Executive Committee (PEC). The PSC will be the apex body in the Program governance hierarchy. The existing State Executive Committee of the HPSDMA, chaired by the Chief Secretary, will function as the PSC. The PSC will provide strategic direction to the Program and be responsible for overall monitoring of Program performance. The PSC will meet at least once in six months. Below the PSC, a PEC will be constituted, which will be responsible for supervising Program implementation and financial progress and managing inter-departmental coordination. The PEC will be chaired by the Principal Secretary (Revenue) and have Heads of Departments/Institutions of Program implementing agencies (IA) as members. External domain experts may be nominated as special invitees on the PEC. The PEC shall meet once in three months or more often as may be necessary. *Exhibit 2: Overall Program governance* shows the Program governance structure.

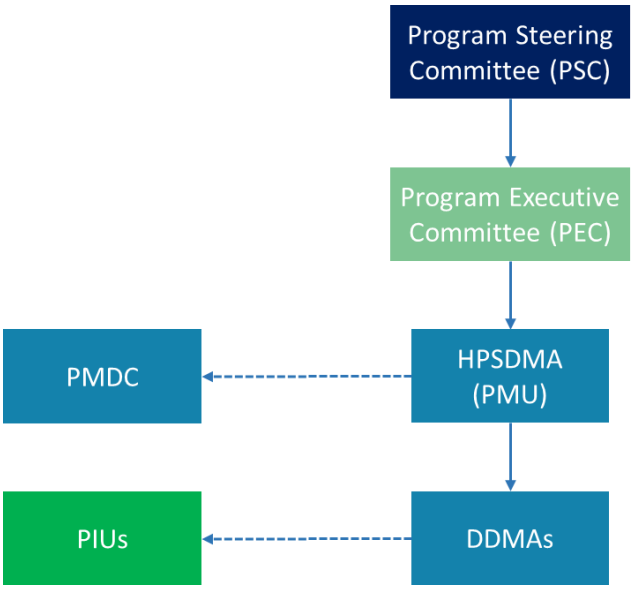


Exhibit 2: Overall Program governance

5.2 Program implementation and monitoring structure

The program implementation structure envisions decentralized project execution and distributed monitoring. The DMC will be the Nodal Agency for the Program. The Director, HPSDMA cum Special Secretary (Revenue) will be designated as the Project Director for the Program. Within DMC, a Program Management Unit (PMU) will be established to oversee Program execution, physical progress/ completion of Projects/Activities, and Program financial matters. The PMU will be responsible for coordinating with the PSC and the PEC, Project IAs, Planning and Finance Departments and with

external agencies like IVA, C&AG and AFD. To support the PMU, a project management consultant (called the Program Management and Design Consultant, or PMDC), will be hired.

A two-level implementation setup under the PMU is envisaged. There will be a State-level Departmental Nodal Officer (SDNO) within each IA (i.e., government department or institution). Offices within the department/institution (at district level or division or sub-division level, as the case may be) shall serve as Project Implementation Units (PIU). DDMAs will serve as the PMU's extended arms and be responsible for overseeing Program execution at the district level. *Exhibit 3: Program implementation and monitoring structure* shows the Program implementation and monitoring structure.

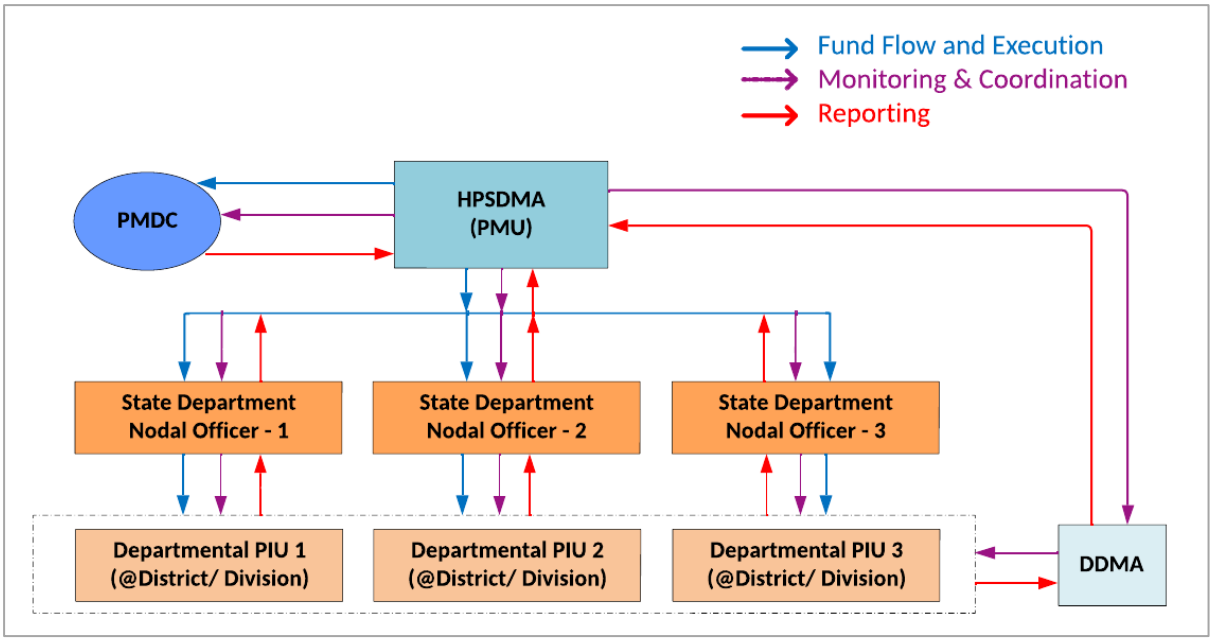


Exhibit 3: Program implementation and monitoring structure

The PMU will also be responsible for monitoring Activities under the RBF Sub-component of Component 1 and coordinating with departments involved in executing it. Verification of results achievement shall be the responsibility of an Independent Verification Agency (IVA), an institution or consultant hired under the Program. The PMU will be responsible for coordinating with the IVA.

5.3 Implementing Agencies

IAs under the Program would be a mix of GoHP departments, State Government institutions, and Central Government institutions. Several Projects would require the involvement of multiple departments/institutions – in such cases, one department/institution would assume the role of a nodal IA for that Project. *Table 8: Nodal Implementing Agencies and Projects* shows the nodal implementing agency for each Project.

Table 8: Nodal Implementing Agencies and Projects

Nodal Implementing Agency[21]	Projects
Civil Defence and Home Guards Department	2.8. Strengthening of existing Training Centres
Central Water Commission (CWC)	2.1. Developing Early Warning System (EWS) for landslide, flash floods, cloudbursts, glacial lake outburst floods (GLOF) and dam safety, Improving networks for flood forecasting and Geographical Information System (GIS)-based Decision Support System (DSS)
Department of Environment, Science, Technology & Climate Change (DEST&CC)	1.2. Climate Change Vulnerability Assessment (CCVA) at Village level 1.3. Strengthening of knowledge products related to climate change and dissemination
Department of Tourism and Civil Aviation	2.7. Establishment of helipads for emergency response
Fire Services Department	2.5. Establishment of Fire and Emergency Response cum Training Centres in unserved locations in the state
Himachal Pradesh Forest Department (HPFD)	2.4. Enhancing implementation of forest fire mitigation measures 3.2. Area-specific Bioengineering Nurseries and Interventions
Himachal Pradesh Public Works Department (HPPWD)	3.1. Mitigation and Slope Stabilization of Vulnerable Landslide Sites
Himachal Pradesh State Disaster Management Authority (HPSDMA) through the Disaster Management Cell (DMC) of Dept of Revenue & District Disaster Management Authorities (DDMAs)	1.1. Strengthening of HPSDMA & DDMAs, State Emergency Operation Centre (EOC) and District EOCs 1.4. Establishing State Institute for Disaster Management 2.2. Improving Last Mile Connectivity by enhancing the Satellite Network 3.3. Creating Climate Change & earthquake resistant Technology Demonstration Units (TDUs) at existing engineering institutes 3.4. Implementing Hazard resistant critical infrastructure
Indian Meteorological Department (IMD)	2.3. Developing climate/weather related forecast for agriculture and horticulture
Police (State Disaster Response Force-SDRF)	2.6. Establishing a State Disaster Response Force (SDRF) Company

In addition to nodal IAs above, the following departments/institutions will also be involved in implementing Projects and undertaking Activities under the RBF Sub-component of Component 1: Panchayati Raj Department, Municipal Council of Chamba, Women and Child Development Department, Education Department, Administrative Reforms Department, Himachal Pradesh Finance Department, Planning Department, Department of Information Technology, Department of Environment, Science, Technology & Climate change (DEST&CC), Himachal Pradesh Council for Science Technology and Environment (HIMCOSTE), Department of Tourism and Civil Aviation, Department of Language & Culture.

5.4 Training and capacity building

Training and capacity building would be key to achievement of the Program's Goal and Objective. The Program is unique in several aspects, which include: (i) usage of the PBS instrument, (ii) comprehensive approach to interventions combining hard investments along with institutional and

[21] Presented in alphabetical order

policy actions, (iii) attempting an RBF Sub-component to encourage high-impact policy actions, and (iv) providing for a CER Component. The number of IAs and other departments involved in Program implementation is high relative to Programs of similar size. Assessment of capacities during Program preparation indicated a need to significantly enhance capacities of the HPSDMA and DDMAs as well as IAs, on technical, E&S, and Program management aspects.

The Program adopts a multi-pronged approach to enhancing capacities of GoHP to implement the Program. The objective is to create capacities that are sustained beyond the Program and are more permanent in nature. Following are the important elements of the capacity-enhancement strategy envisaged:

- Strengthening the PMU by engaging an external team of experts to supplement the DMC team;
- Engaging a PMDC in line with the Program strategy of using external support for achieving implementation readiness of proposed Projects;
- Deploying a web-enabled Program Management System;
- Providing for infrastructure and training within the Program Management budget;
- Strengthening of HPSDMA and DDMAs under the Program (for instance, under Project 1.1 on Strengthening of HPSDMA, DDMAs, State and District EOCs);
- Training activities included for various Projects under the Program such as capacity building of HPSDMA, DDMA, and capacity building through the HPSIDM;
- Regular training to Program IAs on E&S and Gender aspects and Program financial management and procurement aspects as part of the Program Action Plan;
- A possible Technical Assistance grant from AFD complementing the Program.

5.5 Program monitoring and evaluation

Key components of Program monitoring and evaluation (M&E) arrangements will be the PSC, the PEC, regular progress reporting and review, and a mid-term and end-term Program. The PMU will be the primary custodian of the Program M&E arrangements.

Program Steering Committee: The PSC will review physical and financial progress of the Program and take stock of Program achievements and challenges. It will decide upon policy changes, if any, required for better achievement of Program Goal, Objective and Outcomes and direct the Program Nodal Agency and IAs on course corrections required in Program implementation. The PSC will also review adherence to conditions of the Credit Facility Agreement (CFA), decide on activation of the CER Component and approve Program restructuring proposal to the AFD, if needed. The PSC will meet at least once in 6 months, or more often as necessary.

Program Executive Committee: The PEC will monitor Program implementation and guide Program IAs in better execution of Projects/Activities. It will monitor and issue periodic instructions for better coordination amongst the IAs. It will monitor physical and financial progress and issue directions to resolve any technical and administrative bottlenecks noticed. It will place matters for policy/strategic guidance to the PSC in a timely manner. It will issue suitable instructions for enhancing capacities of Program IAs where found necessary and oversee adherence to the Program Action Plan and other

compliance matters. It will seek the advice of external domain experts as needed on technical matters. The PEC will meet once in 3 months or more often as required.

Progress reporting and review: Weekly progress reviews will be held at the SDNO level within each IA. Monthly progress reviews will be held at DDMAs, and at the DMC for the Program as a whole. The weekly and monthly reviews will focus on Project progress against plans, delays and cost escalations, status of procurements, status of clearances and other compliances, status of deposit works, Program expenditure and status of submission of UCs. Apart from regular status review, matters such as implementation challenges, response to audit queries, status of training activities etc. will also be covered. Apart from this, officers will undertake periodic physical verification of various Projects.

A reporting system will supplement the review mechanism. Monthly progress reports will flow from the IAs to DDMA and DMC. Quarterly Progress Reports (QPR) will be submitted by the DMC to the PEC, summarizing the progress of the Program and reasons for slippages, if any. A semi-annual report will be shared by the DMC with AFD. The contents of the progress reports will be outlined in the Program Operations Manual.

Mid-term and end-term evaluations: The DMC, in consultation with AFD, will commission a mid-term evaluation at the commencement of the third year of the Program. The evaluation will, apart from reviewing progress of Projects and Activities, focus on progress on the Program Results Chain and consequently towards the Program Goal and Objective. The evaluation will generate recommendations for addressing implementation challenges and improving the efficiency and effectiveness of the Program. It will provide insights to GoHP and AFD for mid-term restructuring of the Program, if found necessary. The end-term evaluation will be undertaken in the last year of Program implementation. It will focus on an evaluation of the Outcome Indicators to assess the extent of achievement of the desired outcomes. it will also capture key learnings emerging from the Program. The end-term evaluation will be in the form of a Performance Audit entrusted to the C&AG under Terms of Reference issued by GoHP.

5.6 Program Monitoring System

Considering the complex nature of the Program and the large number of IAs involved Program management and monitoring would rely extensively on the usage of IT-enabled tools. A web-based Program Monitoring System (PMS) would be developed by the PMU in Year 1. The PMS will help in day-to-day coordination amongst IAs, monitoring of execution of Projects, Program financial management, and generate Program Management Information System (MIS) for multiple stakeholders. It would also allow upload of photographic evidence of site activities along with date and time stamps and GIS coordinates. PMS is being effectively used in similar Programs in other Projects.[22] GoHP may evaluate and implement readily available solutions or decide to engage a vendor for developing a bespoke solution. The DMC would need to work closely with the Department of IT and/or the State Unit of the National Informatics Centre for implementing the PMS. A lumpsum cost for implementing a PMS has been provided under Program Management in the PEF.

[22] For instance, in the AFD-supported CITIIS Program: https://citiis.niua.in/

5.7 Program Operations Manual

The DMC will develop a Program Operations Manual (POM) before Program commencement. The POM will describe the essential administrative and management arrangements for effective Program implementation. It would contain detailed guidelines for Program administration, Program execution including procurement, Program M&E, and Program financial management. The POM would prescribe required templates and instructions, either directly, or through linkages to relevant Uniform Resource Locators (URLs).

6 Program Financial Management arrangements

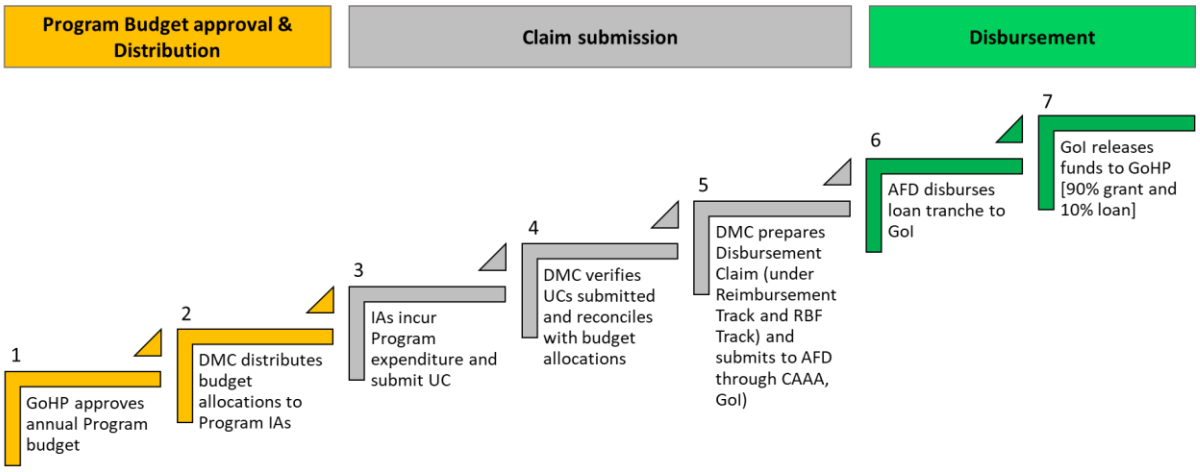
PBS implies using GoHP's financial management systems for the Program. This includes arrangements for Program budgeting, fund flow management, reporting, and audit. Necessary changes to suit specific Program requirements, or to mitigate risks identified in the fiduciary systems assessment would be made. The PFM architecture in GoHP is primarily governed by the HPFR 2009, the revised Treasury Rules, and government orders and circulars issued from time to time. HIMKOSH – GoHP's Integrated Financial Management Information System (IFMIS) constitutes the PFM operating and technology environment.

The HPSDMA, operating through the DMC of the Department of Revenue, shall be the Nodal Agency for the Program. Program IAs include eight GoHP departments, and two Central Government agencies (CWC and IMD). GoHP departments would operate on HIMKOSH. With regard to Projects implemented by CWC and IMD, the related Program financial management aspects will be handled by DMC directly, which would operate on HIMKOSH.

Program financial management arrangements are summarized in the following Sections and covered in detail in *Annex 3: Overview of Program financial management arrangements.*

6.1 Program funds flow

GoHP follows the Treasury Single Account, which means cash management is centralized in HIMKOSH, and outflow of cash happens only when last-mile payments are made. *Exhibit 4: Overview of Program funds flow* shows a schematic representation of the proposed funds flow under the Program. Once the Program budget is approved, the DMC, as the Nodal Agency, transfers budget allocation to Program IAs under specific Budget Lines. IAs incur expenditure and submit utilization certificates. The DMC prepares the half-yearly Disbursement Claim under the Reimbursement Track and RBF Track and submits it to the AFD through the Aid Accounts and Audit Division of the Ministry of Finance, Government of India. After verification, AFD disburses the corresponding instalment to the Government of India (GoI). GoI transfers the amount to GoHP. Falling under the "North-eastern and Hilly States" Category, the instalment is transferred as Grant (90%) and Loan (10%) to GoHP by GoI.



AFD – French Development Agency; CAAA - Controller of Aid Accounts & Audit; DMC – Disaster Management Cell; GoI – Government of India; GoHP – Government of Himachal Pradesh; IA – Implementing Agency; RBF – Results Based Financing; UC – Utilisation Certificate

Exhibit 4: Overview of Program funds flow

6.2 Program budgeting

Budget approval: The Program budgeting process would run coterminous with the annual budget cycle of GoHP. The Finance Department (FD) issues a budget circular in September-October which kickstarts the budget process in the Department of Revenue (DoR). The SDNO of each IA compiles spending proposals from PIUs within the Department and submits the IA's Program expenditure proposal to the DMC. The DMC collects expenditure proposals from all Program IAs, reviews them and prepares the consolidated Program Budget Proposal. After obtaining the approval of the HPSDMA, the DMC submits the Program Budget Proposal to the FD in December-January. Once the Annual State Budget is approved by the State Legislature (in February-March), the FD releases budget allocations under the respective Budget Lines to the DoR on eVitran-the Budget Module of HIMKOSH.

Budget Distribution: The DMC would be responsible for distributing Program budget allocations to each Program IA. Civil works, where required under the Program, would be undertaken by the HPPWD on behalf of IAs under the 'Deposit Works' arrangement. In this arrangement, the DMC/IA transfers the related budget allocation to the Engineer in Chief (EnC) of HPPWD. The EnC, in turn, distributes the budget to divisional/sub-divisional offices within HPPWD through a system called 'Deposit LOC (Letter of Credit).' Periodically, the EnC will submit utilization certificates to DMC/IA. For other expenditure (non-works) to be incurred by the IAs, each SDNO redistributes the budget to Drawing and Disbursing Officers (DDO) within the Department. The entire budget distribution happens on eVitran.

Budget Distribution – CER: In the event of a major disaster, the PSC may decide to activate the CER Component. The DMC prepares CER expenditure estimates and obtains the approval of the PSC. While giving its approval, the PSC will also approve the reallocation of the Program budget to accommodate the CER spending. Based on the PSC's decision, the DMC will write to the AFD and obtain its concurrence. Once approved, the DMC will allocate the CER budget to the respective DDOs. In case of

urgent requirements, the DMC may approve spending from the amount available with DDOs as imprest, to the extent authorized under GoHP rules.

6.3 Program procurement

Program expenditure is distributed over procurement of goods and equipment (16%), works (52%), services including consultancies (31%) and operating costs (1%). All Program IAs shall use the GoHP's e-Procurement portal for procurements under the Program. For procurement of works, GoHP's Standard Bidding Documents (SBD) (used by HPPWD and Jal Shakti Vibhag) will be used. For goods, services, and consultancy procurements, SBD of the World Bank will be followed. Where available, goods shall be procured on the Government e-Marketplace (GeM). All bidding documents used for the Program shall include a Statement of Integrity in a format acceptable to AFD. The Statement of Integrity shall be obtained from the selected vendor at the time of execution of contract.

The DMC will submit an Annual Procurement Plan and obtain a No Objection Certificate. The Annual Procurement Plan will be prepared immediately after the annual Program budget is approved. The DMC will also submit an updated PEF to AFD annually. Additionally, the DMC shall submit an updated Annual Procurement Plan to AFD semi-annually.

6.4 Program expenditure and accounting

Program expenditure will be initially met from the State budget. All payments, including those under the LoC system for Deposit Works and CER, shall be made through the Treasury and recorded on HIMKOSH. HIMKOSH enables mapping Program budget allocations to each DDO by specific Budget Lines, ensuring budget control.

GoHP follows the cash basis of accounting, under which expenditure is accounted in HIMKOSH only when the underlying bills are paid. HIMKOSH shall serve as the primary source of information for reporting Program expenditure, and submission of claims. However, HIMKOSH allows tracking of Program expenditure against specific Budget Lines only. For granular tracking of Program expenditure against Program Projects/Activities, the DMC will maintain subsidiary records in manual/electronic form, and periodically reconcile the expenditure figures with HIMKOSH. Further, expenditure on Deposit Works is accounted against a single Budget Line (called Omnibus Head of Account) on HIMKOSH. For detailed monitoring of Deposit Works expenditure, the DMC/IAs would rely on UCs furnished by HPPWD.

6.5 Utilization reporting

Utilization reporting of Program budget would happen at two levels. The HPPWD would submit periodic utilization reports to DMC/respective IAs for Deposit Works undertaken under the Program. These utilization reports would be self-certified by HPPWD and are mainly intended to enable the DMC/IA to monitor the physical and financial progress of civil works under the Program. The second type of utilization reporting shall be between the IAs and DMC. Within one month of the end of each quarter, each IA will submit a self-certified Utilization Certificate (UC) to DMC. The quarterly UC would cover all Program expenditure (works as well as non-works) incurred in the last quarter.

6.6 Program audit

Program audit would be undertaken by the Principal Accountant General (Audit) of HP in response to an Audit Terms of Reference (ToR) issued by GoHP. The audit arrangement and ToR would be in line with the arrangements presently followed by the GoHP for other Externally Aided Projects, which involves a Program expenditure audit. The DMC will prepare Annual Program Financial Statements (APFS) and submit the same for audit within three months from the end of each Financial Year. The timeline for completion of Program audit shall be nine months from the end of the Financial Year.

6.7 Program Budget Lines

Under PBS, AFD funding will be tied to specific Budget Lines mapped to the Projects/Activities in the PEF. All expenditure under the Program shall be under the Major Head *'2245 – Relief on Account of Natural Calamities,'* and specific Sub-Major and Minor Heads under it. A new Scheme Code will be created for the Program at the Sub-minor head level. The combination of Major, Sub-Major, Minor and Sub-Minor heads constitute the Budget Line against which Program expenditure is booked on HIMKOSH. The list of Budget Lines mapped to individual Projects/Activities and estimated Program expenditure by Budget Lines is shown in the multi-year PEF in *Annex 1: Multi-year Program Expenditure Framework .* Expenditure under CER, if activated, shall be recorded under one or more of the Budget Lines identified for CER in the PEF, depending on the purpose for which it is utilized.

6.8 Disbursement arrangements

Program disbursement claims would follow a half-yearly cycle. The DMC will submit a half-yearly unaudited Disbursement Claim within 45 days of the end of each half-year (i.e., 15th November for first half and 15th May for second half). The Disbursement Claim will be self-certified and clearly show the amounts claimed under the Reimbursement Track and RBF Track separately and be accompanied by supporting documents substantiating the claim.

Disbursement under the RBF Track would be linked to achievement of annual DLI targets subject to an independent third-party verification. The DMC would appoint a third-party institution/consultant as an Independent Verification Agency (IVA) for Activities under the RBF Sub-component of Component 1. Upon achievement of a DLI target, GoHP would invite the IVA to undertake the verification exercise. The IVA would issue a DLI verification report which would form the basis for submitting the related Disbursement Claim. *Annex 4: Verification Protocol for Disbursement Linked Indicators* gives an indicative Verification Protocol for the annual DLI targets. The IVA would use the guidance in the Verification Protocol for developing its verification approach and methodology.

Disbursement claims processing by shall be subject to certain conditions.

- The minimum threshold for submission of a Disbursement Claim (for the Reimbursement Track and RBF Track combined) shall be Euro 200 thousand for the first claim and Euro 5 million for all subsequent claims, except the last claim.
- Disbursement Claim under the CER Component shall be restricted to one instance in the entire Program period.
- Disbursement processing shall be subject to the DMC obtaining a No Objection Certificate

from AFD to the Annual Procurement Plan.

- Disbursement shall be subject to certification of Program expenditure by annual Program audit. Any ineligible Program expenditure identified in the annual Program audit shall be reported and adjusted in the immediate next Disbursement Claim.
- DLI-linked disbursement under the RBF Sub-component of Component 1 would be non-scalable i.e., the amounts would be disbursed only on full (and not proportionate) achievement of the corresponding DLI target.

7 Fiduciary Systems Assessment

7.1 Purpose and approach

PBS relies on usage of the borrower's PFM systems for the Program. The purpose of the Fiduciary Systems Assessment (FSA) is fourfold. It is to assess whether the existing PFM systems of GoHP ensure that: (i) Program budgets are used in accordance with plans, (ii) effective internal control procedures are in place for budget execution, (iii) adequate accounting and reporting procedures exist to record expenditure, and (iv) Program expenditure is subject to adequate external audit and oversight.

The approach to the FSA is aligned to AFD's '*Fiduciary Risk Assessment Doctrine for Budgetary Funding Committed in Foreign States (March 2021)*' – ("the Doctrine")**.** The Doctrine draws upon the Public Expenditure and Financial Accountability (PEFA 2016) Framework.[23] It prescribes assessment on a sub-set of four pillars and 12 indicators prescribed in the PEFA Framework. The fiduciary assessment focusses on identifying key fiduciary risks to the Program and recommending mitigation measures through a combination of loan covenants, Program financial management arrangements, and actions in the Program Action Plan. The fiduciary assessment is based on four aspects: (i) understanding the overall fiduciary risks in the current PFM environment; (ii) assessing on the requirements / dimensions mentioned in the Doctrine, particularly in the context of budgetary controls; effectiveness of expenditure execution and control procedures, reliability of the accounting procedures and financial reporting, and quality of external audits and controls; (iii) identifying mitigation measures; and (iv) suggesting ways to monitor the risks and review performance of the mitigation measures.

7.2 Overall conclusion

The FSA concludes that the PFM systems of GoHP, together with proposed mitigation measures to address weaknesses, provide reasonable assurance that the financing proceeds under the Program will be used for the intended purpose. The Assessment identifies key mitigation measures to address risks arising on account of the identified weaknesses.

7.3 Macro-economic scenario

7.3.1 Global and national economic scenario

The global economy has witnessed severe shocks in recent years.[24] These include pandemic-induced contraction in demand, inflation and widening of Current Account Deficits and weak economic forecasts / outlooks in large economies. Factors such as fragile international relations (conflicts in Europe and East Asia regions) and short-term actions by central banks (such as interest rate hikes) have been amongst the significant causes for the shocks and inflationary pressures witnessed by countries across the globe.

[23] https://www.pefa.org/resources/pefa-2016-framework
[24] Source: Economic Survey of India - https://www.indiabudget.gov.in/economicsurvey/

Although India has not been immune to global trends, the economy has recovered sharply after the Covid-19 pandemic. Economic Survey 2023 indicates a strong economic recovery in FY22 and an ascending trend to pre-pandemic growth levels in FY23 and subsequent periods. FY23 has reinforced the country's belief in its economic resilience. Drivers for the economic recovery have been sustained private consumption and capital formation – capital expenditure of the Government of India increased by 63.4 percent in the first eight months of FY23 over the previous period. In FY24, a baseline Gross Domestic Product (GDP) growth of 6.5 per cent in real terms is forecasted by the National Economic Survey. The International Monetary Fund in its recent World Economic outlook (July 2023), has forecast a growth of 6.1 percent for India in 2023, well above the regional average of 5.3 percent. Similar estimates are provided by the World Bank and the Asian Development Bank. Yet challenges of reining in inflation and a depreciating rupee persist.

7.3.2 State economic scenario:

Despite several unique developmental challenges HP has emerged as a front-runner on multiple socio-economic fronts. During FY22, the state economy grew by 7.6 percent. The growth in FY23 is expected to be 6.4 percent. The Gross State Domestic Product (GSDP) at current prices was approximately INR 1.76 lakh crore in FY22 (revised) as against INR 1.55 lakh crore in FY21 (revised).[25] According to the State Budget for FY24, The GSDP of Himachal Pradesh for FY24 (at current prices) is projected to be INR 2.14 lakh crore, a growth of 10 percent over FY23.[26] However, the Government continues to operate under severe fiscal constraints even after the Covid-19 pandemic. in FY23, fiscal deficit was 6.4 percent of GSDP, substantially higher than the budget estimate of 5 percent.[27] The State Budget has targeted the fiscal deficit for FY24 at 4.6 percent of GSDP.

7.4 Overall PFM environment in the State

7.4.1 Legislative framework for PFM

The legislative framework for PFM in HP largely resembles the setup at the sub-national/State level in the country. The PFM architecture is embodied in the HP Fiscal Responsibility and Budget Management Act (2005) (HP FRBM Act), HP Financial Rules (2009) (HPFR 2009), and HP Treasury Rules (2017), together with departmental manuals and orders issued from time to time. The legal framework for public procurement is spread across the above legislations and in additional enactments such as the HP Records Act 2006, HP Stores Purchase Rules 2013, HP Office Manual, Vigilance Manual and Rules, Delegation of Financial Powers, Public Works Accounts Code, and sector specific notifications issued by the controlling departments from time to time.

The HPFR 2009, modelled on the General Financial Rules of the Government of India (GFR), cover the overall framework for financial management system in the State. The Rules cover matters such as budget formulation and implementation, government accounts, works, procurements, grants, and related aspects. The Treasury Rules cover systems of control over treasury, revenue, expenditure, withdrawal of monies from the Consolidated Fund, Public Account and Contingency Fund and Inter-government transactions. The HP FRBM Act places responsibility on the Government to ensure

[25] Source: Economic Survey of Himachal Pradesh - economic_survey_2022-23.pdf (himachalservices.nic.in)
[26] Source: Himachal Pradesh Budget Analysis 2023-24 (prsindia.org)
[27] Himachal Pradesh Budget Analysis 2023-24 (prsindia.org)

prudence in fiscal management. It primarily covers principles of fiscal management and transparency, procedures for medium-term fiscal planning, and contents of the medium-term fiscal plan.

7.4.2 Institutional arrangements

HP has a well-established PFM institutional structure. At the State level, the Finance Department manages budgeting, cash/treasury management, and expenditure control. The Planning Department determines the macro-fiscal forecasts and departmental outlays and produces the annual plans and development budgets of the State. It also monitors the progress of Externally Aided Projects (EAP).

At the line departments, **PFM responsibilities lie with the heads of departments**. The Delegation of Financial Powers defines the approval powers of various officers. Drawing and Disbursing Officers (DDO) within each department are authorized to incur expenditure. The accounting, internal control, and reporting functions in each line department are looked after by an officer of the HP Finance and Accounts Services, deputed by the FD. He may be designated as a Financial Advisor or Section Officer or Deputy Controller. He is assisted by a Junior Assistant/ First Division Assistant who is responsible for recording and compiling accounts in that office.

Accounts compilation and Audit function are the responsibility of two independent wings of the Comptroller and Auditor General of India (C&AG) – The Supreme Audit Institution. The Accounts & Entitlement wing of the Principal Accountant General's office - AG(A&E) - of the C&AG prepares the Monthly and Annual Civil Accounts, Appropriation Accounts and Finance Accounts of the State Government. The Audit wing of Principal Accountant General's office - AG(Audit) conducts the audit of the State's finances. The audit mandate is provided in the Indian Constitution and relevant audit legislation. There is no system of internal audit in the State. Instead, a system of pre-audit of expenditure incurred in line departments operates as an additional layer of internal control. Audit of EAPs is mostly assigned to the C&AG by the State Government and to private Chartered Accountants in some cases. The Himachal Pradesh State Audit Department (HPSAD) - an independent unit within the FD - conducts audit of the local funds of State organizations other than government departments.

7.5 Key weaknesses in PFM systems of the GoHP and past reforms

Over the past years, GoHP has made concerted efforts to identify weaknesses in its PFM systems. Past assessments include a Methodology for Assessing Procurement Systems (MAPS) Assessment in 2020, a Debt Management Performance Assessment (DeMPA) in 2019, and a PEFA Assessment in 2009. These assessments highlighted certain weaknesses including: (i) fragmented legal framework for Procurement with multiple laws, (ii) lack of procurement provisions to deal with emergencies, (iii) absence of debt management processes such as medium-term debt management strategy, and (iv) lacunas in the budgeting, accounting, reporting, and auditing processes.

GoHP has taken measures to address the weaknesses through multiple PFM reform projects. These include a PFM technical assistance project (2014-15) and the HP PFM Capacity Building Program (2017-23), undertaken with support from the World Bank. Key reform initiatives undertaken include: (i) Updates to the HP Treasury Rules; (ii) Rollout of HIMKOSH - a state-wide Integrated Financial Management Information System (IFMIS); (iii) Formulation of a medium-term debt management

strategy, development of a debt management manual, and implementation of a debt management module in HIMKOSH; (iv) State-wide rollout of e-Procurement system covering all procurements above INR 0.5 million; (v) Implementation of a Contract Management System in Jal Shakti Vibhag; (vi) Strengthening of the HPSAD and updating of the Audit Code; and (vii) Improvements to tax administration through institutional strengthening of the Excise and Taxation Department – a large revenue earning department. These reform initiatives have contributed to strengthening the overall PFM architecture in the State.

However, certain weaknesses and challenges continue to exist. These include: (i) Archaic PFM Rules: The HPFR 2009 are due for an update following a comprehensive upgrade of the GFR in 2017; (ii) Fragmentation in legal framework for procurement; (iii) Absence of internal audit; and (iii) Gaps in completeness of information provided by eKosh – the reporting module of HIMKOSH. The FD is conscious of the persisting weaknesses and is directing its future reform efforts in addressing them.

7.6 Program financial management and procurement

Program financial management (FM) arrangements would operate using GoHP systems and procedures for regular budget execution. Program budget distribution would happen on HIMKOSH. Expenditure will be incurred by Program IAs through the Treasury and accounting would happen on HIMKOSH. A system of periodic utilization reporting would ensure timely and proper monitoring of Program expenditure by the DMC. Program Disbursement Claims by DMC would follow a semi-annual cycle. The C&AG would undertake an annual financial audit of the Program. The Program FM arrangements are outlined in detail in *Section 6: Program Financial Management arrangements*.

The HPSDMA, operating through the DMC, is the designated nodal agency for the Program. Program IAs include eight GoHP departments, and two Central Government agencies (CWC and IMD). GoHP departments operate on HIMKOSH. With regard to Projects implemented by CWC and IMD, the related Program FM aspects will be handled by DMC directly and would also operate on HIMKOSH.

Program procurement will be decentralized. Each IA would be responsible for undertaking procurement activities relating to its Project/Activity under the Program. The HPPWD will undertake civil works on behalf of the IAs under the 'Deposit Works' arrangement. All IAs will use GoHP's e-Procurement portal for Program procurement. Where available, goods shall be procured on the Government e-Marketplace (GeM). The DMC will coordinate with Program IAs and prepare an Annual Procurement Plan and an Annual Program Expenditure Framework during annual Program budget preparation in September-October.

Disbursement, financial reporting, and audit: IAs will submit quarterly self-certified UCs to the DMC. DMC would submit half-yearly unaudited Disbursement Claims to AFD. Annual Program audit would be based on Annual Program Financial Statements prepared by DMC and would be undertaken by the AG (Audit) in response to an Audit Terms of Reference issued by GoHP.

7.7 Key risks and mitigation

The FSA finds that Program FM arrangements, operating on GoHP PFM systems, are adequate for the Program. The GoHP has well-established policies and practices pertaining to budgeting, expenditure, cash management, accounting, and audit. Considering that the total Program outlay of INR 891.8 crores constitutes less than 2 percent of the of the annual expenditure budget (of approximately INR 53,000 crore average in last four years.)[28] the Assessment does not reveal significant FM risks. The Assessment has identified key fiduciary risks that may affect the Program's outcomes and recommended system improvement and capacity strengthening mitigation measures. Key findings are outlined in the following paragraphs. Mitigation actions incorporated into the design of Program FM arrangements in the preparation stage are also discussed.

Planning and budgeting: The framework for planning and budgeting in GoHP is elaborate, with various rules and regulations and digitalized processes. Budget outturns and variances have improved and are within limits, although inter-departmental virements continue to be relatively high. Program budget allocations would be against specific Budget Lines and budget distribution happens on HIMKOSH, ensuring good budget control. HIMKOSH does not provide full visibility of expenditure on Deposit Works by individual Budget Lines. The DMC and IAs would therefore need to rely on quarterly utilization reporting by HPPWD for monitoring deposit works.

Program spending: GoHP has implemented the Treasury Single Account for all its departments. Payments under the Program would be made through the Treasury and accounting happens on HIMKOSH. However, HIMKOSH does not facilitate tracking of expenditure by individual Projects/Activities of the Program. DMC would need to maintain additional records (physical/electronic) to record expenditure against Projects/Activities in the PEF for monitoring and disbursement claim purposes.

Procurement: Usage of e-Procurement portal for Program procurements and Government e-Marketplace would help reduce lead times and ensure better transparency and accountability. Due to scattered pronouncements governing procurement and absence of notified Standard Bidding Documents (SBD), ensuring uniformity of procurement processes and documentation remains a challenge. To address this, under the Program, for procurement of works, GoHP's SBD (used by HPPWD and Jal Shakti Vibhag) shall be used. For goods, services, and consultancy procurements, SBD of the World Bank will be followed. GoHP shall include a Statement of Integrity in all bidding documents used for the Program. The DMC will submit the Annual Procurement Plan and Annual PEF to the AFD and obtain a No Objection Certificate (NOC). Additionally, the DMC shall submit an updated Annual Procurement Plan to AFD semi-annually.

Utilization reporting: In addition to the need to ensure better financial control, an elaborate utilization reporting arrangement would be necessary for tracking expenditure by Program Projects/Activities, for monitoring Deposit Works, and for preparing Disbursement Claims. A two-level quarterly utilization reporting mechanism is envisaged – one from the HPPWD to DMC/IA for Deposit Works and the second from the IAs to DMC covering Program expenditure incurred.

[28] Source: State budget document for 2023-24

Disbursement Claims, financial reporting, and audit: Disbursements against half-yearly Disbursement Claims would be subject to annual Program audit. Consequently, any sums disallowed would be deducted in the subsequent Disbursement Claims. Annual Program audit by the C&AG is in line with the audit arrangement presently followed by the GoHP for other EAPs. Apart from the annual Program financial audit, GoHP would commission a Performance Audit of the Program in the last year of the Program. In the absence of a system of internal audit, the system of self-certification of UCs would operate as an additional layer of accountability.

Program FM capacities: Considering that Program activities will be implemented by multiple IAs, there is an inherent risk associated with variations in fiduciary capacity and compliance to agreed FM and procurement processes. Capacity and performance of Program IAs would be enhanced through targeted training on Program FM and procurement aspects. The POM, which will prescribe detailed processes underlying the Program FM arrangements, would also guide Program IAs.

Table 9: Fiduciary risks and mitigating actions gives a summary of the key risk areas and recommended mitigation actions. The placement of each mitigation action i.e., either as a loan covenant, in the Program FM arrangements, or as a PAP action is also identified.

***Table* 9: Fiduciary risks and mitigating actions**

Key risks areas	Recommendation for mitigation and placement
Accountability of the Program IAs operating outside of Treasury	• CWC and IMD are two such entities. However, the related Program spending will be undertaken by DMC and hence no spending is envisaged outside the Treasury system. *(Program FM arrangements)*
Non-completion, and/or, major cost escalations of Projects financed under the Reimbursement Track	• Program M&E arrangements to specifically include review of implementation delays and cost escalations *(Program M&E)* • APFS and Program audit terms of reference detailing the financial audit requirements *(Program FM arrangements)* • Program audit completion within nine months from end of financial year *(Loan covenant)* • End-term Program Performance Audit *(PAP)*
Potential budgetary out-turns and variances due to policy changes or as a causal effect of disasters and emergencies	• Clear mapping of Budget Lines to Program Activities and earmarking of budget for CER *(Multi-year PEF)* • Clear operating and financing modalities for CER Component *(POM)*
Traceability of the Program expenditure under the CER Component, if activated	
Traceability of expenditure on Program Projects/Activities for effective monitoring of the PEF	• Granular recording and monitoring of expenditure by PEF line items outside HIMKOSH (physical/electronic), and periodic reconciliation with HIMKOSH *(Program FM arrangements)* • Quarterly utilization reporting by all IAs *(Program FM arrangements)*
Monitoring of Deposit Works under the Program	• Quarterly utilization reports of Deposit Works from HPPWD to DMC/IA *(Program FM arrangements)*
Non-uniformity in procurement process and documents	• Usage of SBD: Works-SBD of HPPWD, Goods-GeM and SBD of World Bank, Services including Consultancies-SBD of World Bank *(Program FM arrangements, PAP)*

Key risks areas	Recommendation for mitigation and placement
	• Statement of Integrity to form part of all bidding documents *(Program FM arrangements)* • AFD's No Objection Certificate to be obtained for Annual Procurement Plan *(Loan covenant)* • Updated Annual Procurement Plan to be submitted semi-annually and updated PEF to be submitted annually *(PAP Action)*
Absence of internal audit	• Quarterly self-certified utilization reporting by all IAs *(Program FM arrangements)* • AFD disbursements subject to disallowance of Program expenditure in annual Program audit *(Loan covenant)*
Variations in Program FM capacities amongst IAs	• Half-yearly training on Program FM and Procurement for all IAs *(PAP Action)* • Program Operations Manual *(Loan covenant)*

Detailed Fiduciary Systems Assessment is given in *Annex 5: Fiduciary Systems Assessment.*

8 Disaster Resilient and Responsive Public Financial Management

The Disaster Resilient and Responsive Public Financial Management (DRR-PFM) Framework integrates ex-ante risk reduction explicitly and evaluates how governments can use risk analysis to inform their risk reduction, response, and recovery planning. An assessment, using World Bank's DRR-PFM Tool released in 2022,[29] identifies opportunities for reforms to laws, regulations, policies, and systems that can strengthen a government's capacity to manage disaster-related risks and sustain PFM functions after a disaster. Successive DRR-PFM assessments can track reform implementation.

DRR-PFM as a concept is new and at a nascent stage in HP. At present, GoHP PFM systems do not include policies, plans and procedures with a DRR-PFM focus. *Annex 6: Disaster Resilient and Responsive Public Financial Management (DRR-PFM)* gives a dipstick assessment of GoHP PFM systems in relation to the DRR-PFM framework.

The Program provides a good opportunity to align GoHP's PFM system to the Program Goal through the implementation of the DRR-PFM framework. This would enhance the capability of the PFM system to prepare for, respond to, and recover from disasters. Identifying this need, one of the Program Activities under the RBF Sub-component of Component 1 relates to incorporating key elements of the DRR-PFM Framework in GoHP's PFM setup. This includes undertaking a DRR-PFM diagnostic study followed by implementation of at least two policy-level recommendations and issuance of Emergency Procurement Guidelines.

[29] https://documents.worldbank.org/en/publication/documents-reports/documentdetail/403941645736502355/disaster-resilient-and-responsive-public-financial-management-an-assessment-tool

9 Environment & Social Management Framework

9.1 Introduction

An Environmental and Social System Assessment (ESSA) has been conducted to evaluate GoHP's capacity to manage anticipated Environment and Social (E&S) risks that may affect the achievement of the Program Goal and Objective. The Assessment has compared national and state level policies, and legal and regulatory frameworks with applicable World Bank/AFD's Environment and Social (E&S) Policy to identify the disparities between the requirements. These gaps have been considered while setting the Program exclusion criteria. Document reviews, secondary data analysis and stakeholder consultations were conducted to predict the impact of the proposed interventions during the project cycle as well as capacity assessment of the IAs to manage the impact. Accordingly, an Environmental and Social Management Framework (ESMF) has been developed.

9.2 Objectives

The ESMF aims to: (i) mitigate the potential E&S impacts of the Program (including direct, indirect, induced, and cumulative effects as relevant); (ii) enhance the GoHP's capacity (legal framework, regulatory authority, organizational capacity, and performance) to manage those impacts; (iii) compare applicable systems—laws, regulations, standards, procedures, and implementation performance—against the core principles and key planning elements of World Bank/ AFD to identify significant differences, if any, between them that could affect Program performance; (iii) ensure that the Program achieves its E&S objectives; and (v) recommend measures to address capacity of implementing agencies and encourage implementation of policies and specific operational aspects relevant to managing the Program risks (through staff training, institutional capacity-building programs, and adopting internal operational guidelines) through the Program Action Plan. Implementation of this ESMF will guide the integration of E&S dimensions into the decision-making process at all stages related to the planning, design, execution, operation, and maintenance of the Projects.

9.3 Applicable Standards

The ESMF has been developed to enable:

- the Project stakeholders to agree on the principles of managing E&S impacts;
- the Project Owner to design a project that is respectful of the environment and the population;
- AFD to inform its decision-making process, by verifying the E&S viability of the Program.

This ESMF has been prepared in accordance with:

- ✓ World Bank (WB) E&S Standards (version 2016);
- ✓ WB Group Environmental, Health and Safety (EHS) Guidelines;
- ✓ AFD Environmental and Social Risk Management Approach;
- ✓ International Labour Organization (ILO)'s fundamentals conventions;
- ✓ AFD's gender approach and guidelines;
- ✓ International best practices; and

- ✓ National and State level environmental, social, and Occupational Health and Safety (OHS) related legal framework relevant to the Program.

The applicable E&S standards and policies of the AFD-World Bank (version 2016) have been reviewed for the preparation of project policy, legal and regulatory framework. Key differences between national legislation and WB E&S Standards are with respect to categorization of projects, detail of impact assessment process, and stakeholder consultation. *Table 10: ESS Standards vis-à-vis Indian Legislative Framework* gives an overview of the relevant national and state legislation which cover the key requirements of the ESS Standards and the main areas of difference.

Table 10: ESS Standards vis-à-vis Indian Legislative Framework

World Bank Safeguard Standards	Requirement for Environment & Social Impact Assessment (ESIA)	Relevant Legislation of GoI/ GoHP
ESS 1: Assessment and Management of Environmental and Social risks and Impacts	Identify & assess potential environmental and social impacts of sub projects, holding public consultations with local affected communities and all stakeholders.	• The Wildlife (Protection) Act, 1972 • The Water (Prevention and Control of Pollution) Act, 1974 • The Air (prevention and control of pollution) Act, 1981 • The Environment (Protection) Act, 1986
ESS 2: Labor and Working Conditions	Identification and assessment of OHS risk and Grievance redressal.	Occupational Safety, Health, and Working Conditions Code, 2020 However, this Code does not include unorganized sectors and no judicial mechanism is provided for dispute resolution.
ESS 3: Resource Efficiency and Pollution Prevention and Management	This ESS sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle consistent with Good International Industry Practice (GIIP).	• The Environment (Protection) Act, 1986 • The Energy Conservation Act, 2001 • Compensatory Afforestation Fund Act, 2016
ESS 4: Community Health and Safety and EHS Guidelines	Assess risks and impacts on communities; design of safe and resilient infrastructure, equipment operation, products, services, road safety, hazardous materials; emergency preparedness.	There is no equivalent legislation in India, in particular for dam safety.
ESS 5: Land Acquisition, Restriction on Land Use, and Involuntary Resettlement	Project will try to avoid any proposed investments that will lead to loss of or access to economic assets, loss of income or resettlement, where this is not possible, the affected people/household should be identified, compensated, and resettled according to the Rehabilitation Action Plan (RAP) developed for that project.	The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act, 2013
ESS 6: Biodiversity Conservation and Suitable	The project will identify the important habitats and forest areas in the proposed areas, and if necessary, the environment assessment	• Compensatory Afforestation Fund Act, 2016 • Biological Diversity act 2002

World Bank Safeguard Standards	Requirement for Environment & Social Impact Assessment (ESIA)	Relevant Legislation of GoI/ GoHP
Management of Natural Resources	process will further identify the ecological functions they perform, the degree of threats to the sites, and the priorities for conservation.	
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	ESIA will identify the tribal population in the project area to help their participation in the project.	• Constitution of India – Article 275, 244, A330, A334, A371 and A164 (1) as well as Fifth and Sixth Schedule. • The Scheduled Tribes and Scheduled Castes (Prevention of Atrocities) Act, 1985
ESS 8: Cultural Heritage	Environment assessment checklist will include available information concerning cultural property aspects of proposed sites for activities, followed up by a reconnaissance survey if cultural property exists (necessary permission requirement will be found).	• The Ancient Monuments and Archaeological Sites and Remains Act, 1958 • Heritage Conservation and Preservation Act, 2010
ESS 10: Stakeholder Engagement and Information Disclosure	ESIA process will ensure stakeholder engagement and information disclosure during the field survey.	Covered across several legislations e.g. The Environment (Protection) Act, 1986, which mandates public consultations during certain projects. However, all projects do not require this sort of public consultation as per law.

9.4 AFD's categorization and exclusion criteria

AFD analyses and classifies all potential projects into High (A) – Substantial (B+) – Moderate (B) – Low (C), depending on the extent of the potential environmental and social risks. The classification considers the nature and scale of the operation, the location and sensitivity of the affected area, the severity of the potential environmental and social risks and impacts, and the client's capacity to manage them.

AFD will not fund any project with High E&S impact. Areas exposed to flood risk, land subsidence and landslide risk will not be included in this Program for development of new facilities (e.g. HPSIDM). Conversion of forest land and felling of large number of trees will be avoided. Project activities that may cause a significant impact to natural habitat and protected areas will not be considered for financing. Besides AFD's exclusion list (refer Annexure 5 of the Program ESMF), Program-specific exclusions criteria have also been developed considering the types of projects proposed. These are:

Environment

- No selection of area exposed to extreme climate vulnerability;
- No conversion of forest land, or degradation of critical natural habitat sites or a large change in land use pattern;
- No air, water, or soil contamination leading to significant adverse impacts on the health or safety of individuals, communities, or ecosystems; and

- No adverse ecological impacts covering large geographical areas or global impacts such as greenhouse gas (GHG) emissions.

Social

- No 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;
- No access to land and/or natural resources leading to large scale social conflict
- No workplace conditions that expose workers to significant risks to health and personal safety;
- No marginalization of, or conflict within or among, social groups; and
- No activity that may cause extensive relocation of Indigenous People or have significant impact on their customary rights on land and natural resources.

9.5 Assessment of impacts

The E&S impacts anticipated during implementation of proposed Projects are mostly associated with physical infrastructure development and are evaluated in the ESMF. Since the location and design of few of the proposed Projects are yet to be finalized, it is not possible to assess the full E&S impact of such Projects at the time of preparation of this Report. Further, the soft component-based Projects/Activities such as studies involve neither DPR preparation nor construction activities. Therefore, E&S risks of those projects have not been evaluated in the ESMF. However, it is expected that these studies will also look into design, construction, and operational aspects during implementation in compliance with the Program ESMF. During implementation of projects based on the outcome of these studies, varying degrees of negative impact are expected on different E&S attributes of the surrounding areas. The significance of these impacts would depend upon the severity, duration and location of individual projects.

The anticipated E&S impacts are significantly dependent upon location, especially for the construction related projects. Most of the impacts for civil construction projects are associated with site selection, which may be adequately mitigated by avoiding sites prone to natural hazards or considering prevalent topographical features. The impact significance can be irreversible or catastrophic if proper mitigation measures are not considered during planning and design phase. Selection of sites by avoiding forest land, site on steep slope, land subsidence, land slide prone areas etc. and planning for climate resilient sustainable infrastructure development will be able to reduce impact significance.

General construction related impacts are anticipated for most of the projects, which would be temporary in nature and site-specific (except few exceptions such as creation of helipad, landslide mitigation etc.),. These are assessed to be of low to moderate impact significance, which can be readily mitigated by adopting suggested mitigation measures. Site-specific Environmental Management Plan, EHS plan, Waste Management Plan, Traffic Management Plan, Emergency Evacuation Plan need to be developed for construction phase compliance. The operation phase impacts for proposed projects are low, and largely positive and beneficial on the target population. However, Emergency Evacuation Plan, EHS Plan and Stakeholder Engagement Plan need to be developed for operation phase of the project.

9.5.1 Risk-ranking of Projects

Assessment of potential impacts has been carried out through a risk-ranking process based on the impact severity (slight/ minor/ major/catastrophic – in the order of increasing degree) and impact duration (temporary/permanent). The risk ranking for this Program has been aligned with AFD's risk ratings of Projects. *Exhibit 5: E&S Risk-ranking Matrix* shows the matrix used for this purpose.

Risk Ranking Matrix for E&S Sensitiveness aligned with AFD's Risk-rating of Projects		**Impact Duration (Duration of the event + recovery time from end of event)**			
		Momentary (<1 month)	**Short-term** (<1 year)	**Medium-term** (1-5 years)	**Irreversible**
Impact Severity* (Extent, Frequency)	**Slight** (Notable effect within site)	Low	Low	Low	Moderate
	Minor (Impacts limited to organizational surroundings)	Low	Moderate	Moderate/ Substantial†	Substantial
	Major (Negative impacts on surrounding environment & repeated non compliances)	Low	Moderate/ Substantial	Substantial	High
	Catastrophic (Serious impacts on many attributes of environment in larger area)	Moderate	Substantial	High	High

Risk Ranking	
High	**Significant**. Impacts with a "**High**" significance are likely to disrupt the function and value of the resource/receptor and may have broader systemic consequences (e.g., ecosystem or social well-being). These impacts are a priority for mitigation in order to avoid or reduce the significance of the impact.
Substantial	**Significant**. Impacts with a "**Substantial**" significance are likely to be noticeable and result in lasting changes to baseline conditions, which may cause hardship to, or degradation of the resource or receptor, although the overall function and value of the resource or receptor is not disrupted. These impacts are a priority for mitigation in order to avoid or reduce the significance of the impact.
Moderate	**Detectable but not significant**. Impacts with a "**Moderate**" significance are expected to be noticeable changes to baseline conditions, beyond natural variation, but are not expected to cause hardship, degradation, or impair the function and value of the resource or receptor. However, these impacts warrant the decision-maker's attention and should be avoided or mitigated where practicable.
Low	**Low**. Any impacts are expected to be indistinguishable from the baseline or within the natural level of variation. These impacts do not require mitigation and are not a concern of the decision-making process.

*The detailed impact severity comparative guidance is presented in the ESMF

Exhibit 5: E&S Risk-ranking Matrix

Based on the above discussion, *Table 11: Project-wise Risk-ranking* gives the risk-ranking of the Projects under this Program.

Table 11: Project-wise Risk-ranking

Projects	Impact Duration	Severity	Risk	Likely Safeguard Instruments
Type 1: Disaster Mainstreaming & knowledge development projects				
Project 1.2, 1.3, 1.5, 1.6, 1.7, 1.8, 1.9 (including DLIs under RBF Sub-component)	Not Applicable[30]	Not Applicable	Not Applicable	These study reports will include E&S aspects, communication and participation protocols
Type 2: Resilience building projects				
Project 2.1	Momentary	Minor	Low (C)	Not required.
Project 2.2	Momentary	Minor	Low (C)	Not Requited.
Project 2.3	Short Term	Minor	Moderate (B)	E&S Screening followed by ESMP, SEP, GAP
Type 3: Disaster response capacity building projects				
Project 1.1	Medium Term	Minor	Moderate (B)	For Moderate risk: E&S Screening followed by ESMP, SEP, GAP For Substantial risk: E&S Screening Report followed by ESIA & ESMP, RAP, EGEF/EGEP, SEP, GAP, LMP, BMP, CHMP
Project 1.4	Medium Term	Minor	Moderate (B)	
Project 2.4	Short Term	Minor	Moderate (B)	
Project 2.5	Short Term	Minor	Moderate (B)	
Project 2.6	Short Term	Minor	Moderate (B)	
Project 2.7	Irreversible	Minor	Substantial (B+)	
Project 2.8	Short Term	Minor	Moderate (B)	
Project 3.3	Medium Term	Minor	Moderate (B)	
Type 4: Disaster Mitigation and Rehabilitation Projects				
Project 3.1	Short Term	Minor	Moderate (B)	E&S Screening followed by ESMP, SEP, GAP
Project 3.2	Short Term	Minor	Moderate (B)	
Project 3.4	Short Term	Minor	Moderate (B)	

9.5.2 Project benefits and impacts

The anticipated positive impacts due to project activities are:

- Improved public safety and security
- Reduced sufferings due to adverse climatic conditions
- Better infrastructure and connectivity
- Improved access to services
- Productive use of time
- Health and Environmental improvements
- Improvements in quality of life and human dignity
- Opportunities for social interaction and gender mainstreaming
- Improved community participation and sense of ownership

[30] Being studies

9.6 Implementation mechanism

The DMC through the concerned IAs will ensure community participation, gender inclusion and information dissemination in the course of the project cycle. For this purpose, a detailed Gender Action Plan Framework for the Program has been developed separately. Project-specific Stakeholder Engagement Plans should be developed based on the World Bank's standard template.[31] A transparent and user-friendly Grievance Redressal Mechanism (GRM) will be developed during Program implementation. The detailed mechanism for grievance redressal along with key participants, timeline for resolution, and escalation matrix is provided in the ESMF document.

9.7 Key risks and mitigation

Based on the ESSA, *Table 12: E&S risks and mitigation actions* **identifies key risks along with the mitigating actions.** The mitigation actions could be built into loan covenants, Project preparation, Project implementation, or as a PAP action. The placement of the mitigation action is also indicated.

Table 12: E&S risks and mitigation actions

Risk component	Potential risks	Proposed mitigation measures and their placement
Environment	Diversion of forest land	Efforts should be made to avoid forest lands or acquire lands for which Forest Clearance has already been obtained *(Project preparation)*
Environment	Impact to local ecology	For Projects like establishment of helipads that may involve significant ecological footprint, efforts should be made to locate these away (more than 10 km if Ecologically Sensitive Zone (ESZ) is not defined else beyond ESZ) from ecologically sensitive areas e.g., national parks, wildlife sanctuaries, etc. *(Project preparation)*
Environment	Requirement for environmental clearance from authority	The Borrower shall ensure, or cause the EA to ensure, that no commencement of Works is allowed under any Works contract for a Project which involves environmental impacts and requires environmental clearances, until the EA has obtained the final approval of (a) the ESIA from AFD, and (b) environmental clearance including approval of the environmental assessment report, from the relevant environment authority of the Borrower and the State. *(Loan covenant)*
Environment	Compliance to legal and other requirements	The Borrower shall ensure or cause the EA to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project, and all projects' facilities comply with (a) all applicable laws and regulations of the Borrower and the State relating to environment, health, and safety; (b) the Environmental safeguards; (c) the ESMF; and (d) all measures and requirements set forth in the respective Project specific ESIA and ESMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report. *(Loan covenant)*
Social	Land Acquisition and Involuntary Resettlement	The Borrower shall cause the State to ensure that all land and all rights-of-way required for a Project are made available to the Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Borrower

[31] Available at https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-framework-resources.

Risk component	Potential risks	Proposed mitigation measures and their placement
		relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; (c) the ESMF; and (d) all measures and requirements set forth in the relevant Resettlement Plan (RP), and any corrective or preventative actions set forth in a Safeguards Monitoring Report. Without limiting the application of the Involuntary Resettlement Safeguards, the ESMF or the relevant RP, the Borrower shall cause the EA to ensure that no physical or economic displacement takes place in connection with the Projects until: (a) compensation and other entitlements have been provided to affected people in accordance with the relevant RP; and (b) a comprehensive income and livelihood restoration program has been established in accordance with the relevant RP. *(Loan covenant)*
		All construction projects should be planned in such a way that there is no land acquisition need requiring development of Rehabilitation Action Plan. *(Project preparation)*
Social	Use of Indigenous peoples' property	Infringement on Indigenous people property should be avoided. *(Project implementation)*
		The Borrower shall cause the EA to ensure that the Projects do not have any impact on Indigenous peoples within the meaning of the Environmental & Social Commitment Plan (ESCP). In the event that any Project does have any such impact, the Borrower shall ensure or cause the State to ensure that the preparation, design, construction, implementation and operation of the relevant Project(s) comply with (a) all applicable laws and regulations of the Borrower relating to indigenous peoples; (b) the Indigenous Peoples Safeguards; (c) the Indigenous People Plan (IPP); and (d) all measures and requirements set forth in the relevant IPP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report. *(Loan covenant)*
Social	Labour standards	The EA shall ensure that civil works contracts under the Project follow all applicable labour laws of the Borrower and the State, and that these further include provisions to the effect that contractors: (a) carry out HIV/AIDS awareness programs for labourer and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; and (b) follow and implement all statutory provisions on labourer (including not employing or using children as labourer, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such contracts will also include clauses for termination in case of any breach of the stated provisions by the contractors. (*Loan covenant*)
Social	Exclusion of women in project activities	The Borrower shall ensure or cause the EA to ensure that (a) the Gender Action Plan (GAP) is implemented in accordance with its terms; (b) the bidding documents and the contracts include relevant provisions for contractors to comply with the measures set forth in the GAP: (c) adequate resources are allocated for implementation of the GAP; and (d) progress on implement GAP, including progress toward achieving key gender outcome and output targets are regularly monitored and reported to AFD. *(Loan covenant)*
		Inclusion of gender in the construction and implementation activities would ensure ownership of projects. *(Project implementation)*

Risk component	Potential risks	Proposed mitigation measures and their placement
E&S	Unavailability of human and financial resources to implement Safeguards requirements	The Borrower shall make available or cause the Executing Agency (EA) to make available all necessary budgetary and human resources to fully implement the Project specific ESMPs. *(Loan covenant)*
E&S	Non-inclusion of ESMP provisions in the Works contracts	The Borrower shall ensure or cause the EA to ensure that no Works contract is awarded for a Project which involves E&S impacts until the EA has incorporated the relevant provisions from the Project-specific ESMP into the Works contract. *(Loan covenant)*
E&S	Communication and Participation	The Borrower shall ensure, or cause the EA to ensure, that the project is undertaken in conformity with the communication strategy as agreed between AFD, the Borrower, the State and the EA and referred to in the Program Operations Manual.
E&S	Safeguard provisions	The Borrower shall ensure, or cause the EA to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures and requirements relevant to the contractor set forth in the ESIA, the ESMP, the RP and the IPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report; (b) make available a budget for all such E&S measures. (c) provide the EA with a written notice of any unanticipated E&S risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the ESIA, the ESMP, the RP or the IPP; (d) adequately record the condition of roads, agricultural land, and other infrastructure prior to starting to transport materials and construction; and (e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction. (*Loan covenant*)
E&S	Safeguard monitoring and reporting	The Borrower shall cause the EA to do the following: (a) submit quarterly Safeguards Monitoring Reports to AFD and disclose relevant information from such reports to affected persons promptly upon submission. (b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the ESIAs, the ESMPs, promptly inform AFD of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and (c) report any breach of compliance with the measures and requirements set forth in the ESMPs, promptly after becoming aware of the breach. (*PAP*)

10 Overall Risk Assessment and Program Action Plan

10.1 Overall risk assessment

The overall risk assessment is subjective and is informed by (but not fully compliant with) the Systematic Operations Risk Rating Tool (SORT) methodology of the World Bank.[32] Accordingly, the risk is assessed as "High," "Substantial," "Moderate," and "Low" under applicable categories. The assessment is primarily based on the Fiduciary Systems Assessment (FSA) and the Environment and Social Systems Assessment (ESSA) supplemented by desk-research and consultations during Program preparation.

T**he overall risk to achievement of the Program Goal and Objective is assessed as "Substantial."** This emerges from assessing risks from the macroeconomic, institutional capacities, and Stakeholder perspectives as "Substantial," risks from political and governance, technical design, and fiduciary as "Low," and E&S and other risks as "Moderate."

Political and governance risks are assessed as "Low." State elections were held in 2022 and a stable government is in place. Nationally, HP is reckoned as a well-governed State and has shown strong performance on most governance and socio-economic indicators.

Macro-economic and fiscal risks are assessed as "Substantial." Fiscal deficit continues to be high and recent developments like the decision to switch to the Old Pension System and increasing losses on account of natural disasters could further restrict the available fiscal space, resulting in decreasing developmental expenditure and higher debt levels.

Program technical design risks are assessed as "Low." The Program interventions are well-grounded within the policy priorities of the State and are balanced in terms of their ambition level and practicality. Projects/Activities include a good mix of hard investments and soft actions.

Implementation capacity risk is assessed as "Substantial." Human resources in HPSDMA and the DDMAs are limited. Although there are plans to increase human resources and their capacities, including measures under the Program, availability of talent in the region is limited and direct recruitment in government is traditionally time-consuming. It could take time before new personnel are onboarded and trained. Further, the bandwidth of HPSDMA and DDMAs are significantly stretched due to increasing number and magnitude of natural disasters in the State. There is a likelihood of disaster response activities taking precedence to prevention and preparedness – the primary focus of the Program.

Fiduciary risks are assessed as "Low." GoHP has a reasonably advanced IFMIS and established PFM processes. The procurement framework, however, needs to be strengthened. For several of the assessed risks, mitigation measures are built into the Program design itself.

[32] https://www.worldbank.org/content/dam/Worldbank/document/SORT_Guidance_Note_11_7_14.pdf

E&S risks are assessed as "Moderate" assuming that ecologically sensitive locations will be avoided. However, construction phase E&S impacts are anticipated as several Program interventions involve infrastructure development.

Stakeholder risk is assessed as "Substantial." Several Program interventions have direct implications for local communities as well as gender implications. It is important to involve them in the Program design and implementation. The number of implementing agencies is large compared to Programs of similar size and scope – effective collaboration and coordination would be a key success factor.

Other risks are rated 'Moderate.' These arise primarily on account of usage of the PBS instrument, simultaneously targeting the RBF and CER Components, which introduces an additional element of complexity in Program implementation.

Table 13: Overall Risk Assessment presents a summary of the overall risks assessment.

Table 13: Overall Risk Assessment

Risk Category		Rating (High, Substantial, Moderate, Low)
1.	Political and Governance	Low
2.	Macro-economic and fiscal	Substantial
3.	Technical design	Low
4.	Implementation capacity	Substantial
5.	Fiduciary	Low
6.	Environment & Social	Moderate
7.	Stakeholder	Substantial
8.	Others	Moderate
OVERALL		**SUBSTANTIAL**

10.2 Program Action Plan

Table 14: Program Action Plan outlines the actions identified for mitigating key risks along with their responsibility, timing and completion measurement.

Table 14: Program Action Plan

Action	Responsibility	Timing	Completion Measurement
Technical			
Mobilize the Program Management and design Consultancy	DMC	Within 6 months of Program commencement	Consultancy procurement completed and work order issued
Appointment of IVA for RBF Sub-component of Component 1	DMC	Within 6 months of Program commencement	Consultancy procurement completed and work order issued

Action	Responsibility	Timing	Completion Measurement
Implement a web-enabled Program Management System	DMC	Within 6 months of Program commencement	Web-enabled Program Management System implemented
Commission a mid-term evaluation at the commencement of the third year of the Program	DMC	3rd year commencement	Mid-term evaluation report submitted
Commission a Performance Audit in the last year of the Program	DMC	Last year	Performance Audit report submitted
Fiduciary			
Submission of an updated Annual Procurement Plan	DMC	Semi-annual	Submission
Submission of an updated Program Expenditure Framework	DMC	Annual	Submission
Usage of Standard Bidding Documents: Works-SBD of HPPWD, Goods-GeM and SBD of World Bank, Services including Consultancies-SBD of World Bank	Implementing Agencies	Continuous	Usage of SBDs
Undertake periodic training to Program IAs on Program implementation and Program FM	DMC	Semi-annual	Training report
Environment & Social			
Avoid forest lands or acquire lands for which Forest Clearance has already been obtained	Implementing Agencies	Continuous	Exception approvals with justification for acquiring forest lands updated in Program Quarterly Progress Report (QPR)
For Projects like establishment of helipads that will involve significant ecological footprint, locate these away (more than 10 km if ESZ is not defined else beyond ESZ) from ecologically sensitive areas (e.g., national parks, wildlife sanctuaries)	Implementing Agencies	Continuous	Exception approvals with justification updated in Program QPR
For construction projects avoid land acquisition requiring development of Rehabilitation Action Plan	Implementing Agencies	Continuous	Exception approvals with justification updated in Program QPR
Avoid infringement on Indigenous people property	Implementing Agencies	Continuous	Exception approvals with justification updated in Program QPR
Inclusion of gender in the construction and implementation activities	Implementing Agencies	Continuous	Project specific sex-disaggregated data updated in Program QPR
Safeguard monitoring and reporting	DMC	Quarterly	Submission of Program QPR

11 Program Readiness

11.1 Conditions precedent to Credit Facility Agreement and loan covenants

The following is a list of actions/compliances that may be included either as conditions precedent to the CFA or as loan covenants, as finally agreed in negotiations between AFD and GoHP/GoI.

1. Official notification of PSC, PEC, and Nodal Agency for the Program.
2. Completion process of consultancy procurement for PMU.
3. Preparation and approval of a Program Operations Manual.
4. Disbursement Claim under the CER Component shall be restricted to one instance in the entire Program period. Prior approval of AFD shall be obtained for activation of the CER Component. CER activation would trigger a revision of AFD's financing share for prospective disbursements.
5. Disbursement shall be subject to certification of Program expenditure by annual Program audit. Any ineligible Program expenditure identified in the annual Program audit shall be reported and adjusted in the immediate next Disbursement Claim.
6. DLI-linked disbursement under the RBF Sub-component of Component 1 would be non-scalable i.e., the amounts would be disbursed only on full (and not proportionate) achievement of the corresponding DLI target.
7. Disbursement processing shall be subject to the DMC obtaining a No Objection Certificate from AFD to the Annual Procurement Plan.
8. Minimum threshold for submission of a Disbursement Claim (for the Reimbursement Track and RBF Track combined) shall be Euro 200 thousand for the first claim and Euro 5 million for all subsequent claims, except the last claim.
9. Completion of Program audit within nine months from the end of the financial year, i.e., by 31st December.
10. Loan covenants underlying E&S mitigation actions on the lines suggested in *Table 12: E&S risks and mitigation actions.*

11.2 AFD implementation support

AFD's implementation support would focus on three core areas: technical support, building capacities of Program implementing agencies, and progress reviews. The Team would review and provide its suggestions on key Program documents like bidding documents, implementation plans, study reports, and other outputs shared by GoHP. The AFD team will undertake semi-annual implementation support missions and more frequent visits, as needed. The missions will focus on review of progress against plans, progress on the results chain, identifying challenges, and working out strategies in collaboration with Program implementing agencies. The team would contribute to GoHP's efforts to build internal capacities by exposing implementing agencies to good practices learned from similar projects globally and nationally and mobilizing subject matter experts for knowledge-sharing. The team would monitor significant changes to fiduciary and E&S risks and advise GoHP on measures to mitigate them. Adherence to loan covenants and PAP would also be monitored.

In addition to regular implementation support, AFD would mobilize a consultant to assist GoHP in preparation for Program launch. The consultancy support would, amongst other things, assist the DMC: (i) in initiating procurements for key consultancies like the PMU, PMDC, PMS, IVA, diagnostic studies etc.; (ii) in drafting circulars/notifications outlining the roles and responsibilities of different IAs and DMC - the Nodal Agency; and (iii) in preparing the first year PEF and Procurement Plan. The support would also include help in preparing the POM and the Terms of Reference for Program audit. The precise areas of support would be worked out in due course.

AFD is exploring mobilizing a possible TA grant under a potential bilateral cooperation arrangement between France and India. AFD's support under these would run complementary to the Program and help GoHP in its journey towards the Program Goal and Objective.

11.3 Opportunities for technical assistance

Development of knowledge, skill and expertise is key to enhancing efficiency and effectiveness of the Program. A Technical Assistance (TA) grant can complement efforts to achieve the Program outcomes. Potential areas where GoHP can utilize a TA grant from AFD are:

1. Advanced tools and equipment in forest and industrial fire management;
2. Training and capacity building of the Himachal Pradesh Forest Department personnel in disaster management with emphasis on forest fire mitigation;
3. Post-forest fire monitoring and ecological restoration of forest fire affected ecosystems;
4. Search and rescue operations;
5. Exposure trips (for instance to the Kerala and Gujarat State Disaster Management Authority);
6. Training programs for raising awareness and enhancing capabilities of Program implementing agencies about E&S and gender issues;
7. Technical advice to the Finance Department on including disaster-resilience aspects in GoHP's PFM systems;
8. PFM diagnostics like PEFA.

Annexes

Annex 1: Multi-year Program Expenditure Framework

A. By Components & Activities

Program Components and Projects/Activities	Budget Line	Year Wise Allocation					Total Cost (EUR Mn)*	Total Cost (INR Cr)*	AFD Share of Funding	
		1	2	3	4	5			%	Amount
Component 1: Enhancing disaster risk governance, through institutional capacities, risk understanding and knowledge management/dissemination										
1.1 Strengthening of HPSDMA & DDMAs, state EOC and district EOCs	2245-07-101-xx	0.3	4.3	2.4	-	-	7.0	61.9		5.8
1.2 Climate Change Vulnerability Assessment (CCVA) at Village Level for all river basins (hydro-meteorological hazards)	2245-07-101-xx	0.7	0.4	0.4	-	-	1.5	13.4		1.3
1.3 Strengthening of knowledge products related to climate change and dissemination. Developing extensive Information Education and Communication (IEC) & awareness material in local vernacular languages	2245-07-101-xx	0.4	0.3	0.3	-	-	1.0	8.5	*83.7%*	0.8
1.4 Establishing State Institute for Disaster Management	2245-80-101-xx	0.1	1.2	0.8	1.0	0.2	3.3	28.9		2.7
		1.5	***6.2***	***3.8***	***1.0***	***0.2***	***12.7***	***112.7***		***10.6***
RBF Sub-component of Component 1										
1.5 Mainstreaming Climate Change and Disaster Risk Resilience in HP (DLI1)	2245-80-800-xx	-	1.0	2.0	1.0	-	4.0	35.6		4.0
1.6 Improvements to DRR Framework in the State (DLI2)	2245-80-001-xx	-	0.5	0.5	1.0	0.5	2.5	22.3		2.5
1.7 Mainstreaming Gender in Disaster Risk Resilience in HP (DLI3)	2245-80-800-xx	0.5	0.5	-	0.5	0.5	2.0	17.8	*100%*	2.0
1.8 Disaster responsive PFM systems (DLI4)	2245-80-800-xx	0.5	1.0	-	1.0	-	2.5	22.3		2.5
1.9 IT solutions for effective disaster mitigation and response (DLI5)	2245-80-800-xx	-	1.0	0.5	0.5	2.0	4.0	35.6		4.0

Program Components and Projects/Activities		Budget Line	Year Wise Allocation					Total Cost (EUR Mn)*	Total Cost (INR Cr)*	AFD Share of Funding	
			1	2	3	4	5			%	Amount
			1.0	***4.0***	***3.0***	***4.0***	***3.0***	***15.0***	***133.5***		***15.0***
		Total for Component 1	***2.5***	***10.2***	***6.8***	***5.0***	***3.2***	***27.7***	***246.2***	***92.5%***	***25.6***
Component 2: Strengthening disaster preparedness, through effective early warning system and better emergency response capacities											
2.1	Developing EWS for landslide, flash floods, cloudbursts, GLOFs and Dam safety, Improving networks for flood forecasting + GIS-based Decision Support System	2245-07-101-xx	2.4	3.6	3.6	2.7	1.1	13.5	120.2		11.3
2.2	Improving Last Mile Connectivity by enhancing the Satellite Network	2245-07-101-xx	0.3	-	-	-	-	0.4	3.7		0.4
2.3	Developing climate/weather related forecast for agriculture and horticulture	2245-07-101-xx	0.5	3.0	0.2	0.1	0.7	4.6	40.9		3.9
2.4	Enhancing Implementation of forest fire mitigation measures	2245-07-101-xx	1.4	1.6	0.7	0.7	0.5	4.9	43.2	*83.7%*	4.1
2.5	Creation of fire stations in unserved location for enhancing fire response with equipment and vehicles and strengthening of three existing fire stations for HAZMAT emergencies	2245-07-101-xx	-	3.7	1.1	1.1	0.6	6.5	57.9		5.4
2.6	Establishing SDRF 1 Company (Kangra)	2245-07-101-xx	3.7	1.9	2.6	4.2	-	12.4	110.1		10.4
2.7	Creation of Helipads	2245-07-101-xx	1.6	0.6	0.2	0.1	0.1	2.5	22.3		2.1
2.8	Strengthening Training for Disaster Response	2245-80-101-xx	-	0.6	0.2	0.3	-	1.1	10.1		1.0
		Total for Component 2	***9.9***	***15.1***	***8.6***	***9.2***	***3.1***	***45.9***	***408.3***		***38.4***
Component 3: Supporting mitigation measures, including eco-DRR and nature-based solutions											
3.1	Landslide mitigation and slope stabilization of vulnerable landslide sites	2245-07-101-xx	-	4.2	2.2	1.2	1.1	8.7	77.4		7.3
3.2	Developing area-specific bioengineering nurseries	2245-07-101-xx	0.3	1.0	0.8	0.8	0.5	3.4	30.1		2.8
3.3	Creating Climate Change & earthquake resistant Technology Demonstration Units (TDUs) at existing engineering institutes	2245-07-101-xx	0.1	1.8	1.8	0.7	0.3	4.7	41.8	*83.7%*	3.9
3.4	Implementing Hazard resistant critical infrastructure	2245-07-101-xx	1.0	1.0	1.0	1.0	0.5	4.5	40.4		3.8
		Total for Component 3	***1.5***	***7.9***	***5.8***	***3.7***	***2.4***	***21.3***	***189.7***		***17.8***
		Total for three Components	***13.9***	***33.1***	***21.3***	***17.9***	***8.7***	***94.9***	***844.2***	***86.3%***	***81.9***

Program Components and Projects/Activities		Budget Line	Year Wise Allocation					Total Cost (EUR Mn)*	Total Cost (INR Cr)*	AFD Share of Funding	
			1	2	3	4	5			%	Amount
Program Management											
P1	PMU Consultancy	2245-80-001-xx	0.3	0.3	0.3	0.3	0.3	1.6	14.0		-
P2	Program Management & Design Consultancy	2245-80-001-xx	0.6	0.5	0.5	0.5	0.6	2.7	23.6		-
P3	Infrastructure	2245-80-001-xx	0.2	-	-	-	-	0.2	1.5	*0%*	-
P4	Training & Capacity Building	2245-80-101-xx	0.2	0.2	0.2	0.2	0.2	0.9	7.7		-
P5	IVA Cost for RBF Track	2245-80-001-xx	-	-	-	-	-	0.1	0.8		-
Total Program Management Costs			***1.2***	***1.0***	***1.0***	***1.1***	***1.1***	***5.4***	***47.6***		***-***
CER Component		#	-	-	-	-	-	-	-		-
Total Program Cost			***15.1***	***34.1***	***22.3***	***19.0***	***9.8***	***100.2***	***891.8***	***81.7%***	***81.9***

* Amounts are rounded to the nearest single decimal place

One or more of the Budget Lines indicated in Table B below

B. By Budget Lines

Budget Line	Year wise allocation (EUR Mn)						Total
	1	2	3	4	5	Total	INR Cr
2245 - Relief on account of Natural Calamities							
07 - Disaster Management							
101- Disaster Mitigation							
2245-07-101-xx							
DMC (including CWC and IMD)	4.6	13.8	9.0	4.6	2.7	34.7	309.0
DEST&CC	1.1	0.7	0.7	-	-	2.5	21.8
Himachal Pradesh Forest Department	1.8	2.6	1.5	1.5	0.9	8.2	73.2
Fire Services Department	-	3.7	1.1	1.1	0.6	6.5	57.9
Police (State Disaster Response Force - SDRF)	3.7	1.9	2.6	4.2	-	12.4	110.1
Dept. of Tourism and Civil Aviation	1.6	0.6	0.2	0.1	0.1	2.5	22.3
HPPWD	0.0	4.2	2.2	1.2	1.1	8.7	77.4
	12.8	***27.4***	***17.3***	***12.6***	***5.4***	***75.5***	***671.6***
80 - General							
001-Direction and Administration							
2245-80-001-xx							
DMC	1.0	1.3	1.3	1.9	1.4	7.0	62.1
101-Centre for Training in disaster preparedness							
2245-80-101-xx							
DMC	0.2	1.4	1.0	1.1	0.4	4.1	36.5
Civil Defence & Home Guards Dept	0.0	0.6	0.2	0.3	0.0	1.1	10.1
	1.3	***3.2***	***2.5***	***3.3***	***1.9***	***12.2***	***108.9***
800-Other Expenditure							
2245-80-800-xx							
DMC	1.0	3.5	2.5	3.0	2.5	12.5	111.3
	1.0	***3.5***	***2.5***	***3.0***	***2.5***	***12.5***	***111.3***
01- Drought*							
102-Drinking Water Supply	-	-	-	-	-	-	-
02- Floods/Cyclones etc.*							
102-Drinking Water Supply	-	-	-	-	-	-	-

Budget Line	Year wise allocation (EUR Mn)						Total
	1	2	3	4	5	Total	INR Cr
106-Repairs and restoration of damaged roads and bridges	-	-	-	-	-	-	-
109-Repairs and restoration of damaged water supply, drainage and sewerage works	-	-	-	-	-	-	-
06-Earthquakes*							-
102-Drinking Water Supply	-	-	-	-	-	-	-
106-Repairs and restoration of damaged roads and bridges	-	-	-	-	-	-	-
109-Repairs and restoration of damaged water supply, drainage and sewerage works	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Total	***15.1***	***34.1***	***22.3***	***19.0***	***9.8***	***100.2***	***891.8***

*Budget Lines earmarked for CER Component

C. By Expenditure Type

Program Components and Projects/Activities		Expenditure (by Type) (EUR Mn)					Total Cost (INR Cr)
		Goods & Equipment	Works	Services including Consultancies	Operating Costs	Total Cost	
Component 1: Enhancing disaster risk governance, through institutional capacities, risk understanding and knowledge management/ dissemination							
1.1	Strengthening of HPSDMA & DDMAs, state EOC and district EOCs	-	6.8	0.2	-	7.0	61.9
1.2	Climate Change Vulnerability Assessment (CCVA) at Village Level for all river basins (hydro-meteorological hazards)	-	-	1.5	-	1.5	13.4
1.3	Strengthening of knowledge products related to climate change and dissemination. Developing extensive Information Education and Communication (IEC) & awareness material in local vernacular languages	-	-	1.0	-	1.0	8.5
1.4	Establishing State Institute for Disaster Management	-	2.7	0.6	-	3.3	28.9
		-	***9.4***	***3.2***	***-***	***12.7***	***112.7***
RBF Sub-component of Component 1							
1.5	Mainstreaming Climate Change and Disaster Risk Resilience in HP (DLI1)	-	-	4.0	-	4.0	35.6
1.6	Improvements to DRR Framework in the State (DLI2)	-	-	2.5	-	2.5	22.3
1.7	Mainstreaming Gender in Disaster Risk Resilience in HP (DLI3)	-	-	2.0	-	2.0	17.8
1.8	Disaster responsive PFM systems (DLI4)	-	-	2.5	-	2.5	22.3
1.9	IT solutions for effective disaster mitigation and response (DLI5)	-	-	4.0	-	4.0	35.6
		-	***-***	***15.0***	***-***	***15.0***	***133.5***
	Total for Component 1	-	***9.4***	***18.2***	***-***	***27.7***	***246.2***
Component 2: Strengthening disaster preparedness, through effective early warning system and better emergency response capacities							
2.1	Developing EWS for landslide, flash floods, cloudbursts, GLOFs and Dam safety, Improving networks for flood forecasting + GIS-based Decision Support System	6.5	0	7.0	0	13.5	120.2
2.2	Improving Last Mile Connectivity by enhancing the Satellite Network	0.2	-	0.2	-	0.4	3.7
2.3	Developing climate/weather related forecast for agriculture and horticulture	4.2	0.1	0.4	-	4.6	40.9

Program Components and Projects/Activities		Expenditure (by Type) (EUR Mn)					Total Cost (INR Cr)
		Goods & Equipment	Works	Services including Consultancies	Operating Costs	Total Cost	
2.4	Enhancing Implementation of forest fire mitigation measures	0.7	3.4	0.8	-	4.9	43.2
2.5	Creation of fire stations in unserved location for enhancing fire response with equipment and vehicles and strengthening of three existing fire stations for HAZMAT emergencies	3.7	2.8	-	-	6.5	57.9
2.6	Establishing SDRF 1 Company (Kangra)	-	12.4	-	-	12.4	110.1
2.7	Creation of Helipads	-	2.4	0.1	-	2.5	22.3
2.8	Strengthening Training for Disaster Response	-	1.1	-	-	1.1	10.1
	Total for Component 2	***15.4***	***22.2***	***8.3***	***-***	***45.9***	***408.3***
Component 3: Supporting mitigation measures, including eco-DRR and nature-based solutions							
3.1	Landslide mitigation and slope stabilization of vulnerable landslide sites	-	8.7	-	-	8.7	77.4
3.2	Developing area-specific bioengineering nurseries	-	3.4	-	-	3.4	30.1
3.3	Creating Climate Change & earthquake resistant Technology Demonstration Units (TDUs) at existing engineering institutes	0.4	3.4	0.9	-	4.7	41.8
3.4	Implementing Hazard resistant critical infrastructure	-	4.5	-	-	4.5	40.4
	Total for Component 3	***0.4***	***20.0***	***0.9***	***-***	***21.3***	***189.7***
	Total for three Components	***15.8***	***51.7***	***27.5***	***-***	***94.9***	***844.2***
Program Management							
P1	PMU Consultancy	-	-	0.7	0.9	1.6	14.0
P2	Program Management & Design Consultancy	-	-	2.0	0.6	2.7	23.6
P3	Infrastructure	0.1	0.1	-	-	0.2	1.5
P4	Training & Capacity Building	-	-	0.9	-	0.9	7.7
P5	IVA Cost for RBF Track	-	-	0.1	-	0.1	0.8
	Total Program Management Costs	***0.1***	***0.1***	***3.6***	***1.5***	***5.4***	***47.6***
	CER Component						
	Total Program Cost	***15.8***	***51.8***	***31.1***	***1.5***	***100.2***	***891.8***
	% by Expenditure Type	*16%*	*52%*	*31%*	*1%*	*100%*	

Annex 2: Detailed Technical Assessment of Components and Projects

Project 1.1 - Strengthening of HPSDMA & DDMAs, state EOC and district EOCs | Fully functional HPSDMA and DDMAs in place at district level and fully established and well-equipped State Emergency Operations Centre (SEOC) and 6 District Emergency Operations Centre (DEOCs)| Estimated Cost INR 62.3 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
DMC	Section 5.3 & 5.5	1. Physical infrastructure for HPSDMA and 6 DDMAs 2. Exposure Visits
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
1. Ensure that the sites for HPSDMA and DDMA are not in hazard prone area 2. Ensure that the HPSDMA and DDMA structures are disaster and climate change resilient 3. Development of training calendars for new recruits particularly with natural hazards and DRR options	1. Ensure zero displacement 2. Assess temporary income loss of local people 3. Facility should ensure accessibility to person with special needs 4. Construction design should include gender aspects 5. Effort should be made to have 50%-women employees 6. Implement gender action plan during construction and operation phase	1. Sites for HPSDMA and DDMAs should not be on forest land 2. Ensure energy efficient building design and compliance with Griha V2019 4STAR ratings 3. Develop project specific construction ESMP including waste and traffic management plan in line with ESMF
Institutional capacity of nodal agency		
1. Manpower to be strengthened and job descriptions to be developed for all the HR positions 2. Continuous training to be imparted for capacity building 3. External members of HPSDMA to be appointed 4. Participatory mechanism to be included in the HPSDMA structure as per NDMA guidelines		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Infrastructure					
2	Training					
3	Exposure Visit					

Project 1.2 - Climate Change Vulnerability Assessment (CCVA) at Village Level for all river basins (hydro-meteorological hazards) | Update of Beas & Sutlej reports to AR 5 level | Estimated Cost INR 13.4 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
DEST&CC	Section 2.11	Update of Beas & Sutlej reports to AR 5 level
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
Current state of knowledge relevant to climate change should be included in this study	These studies should incorporate the social and gender aspects	Need to incorporate anticipated environmental impacts
Institutional capacity of nodal agency		
IA is equipped to complete the study		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Diagnostic Study					
2	Assessment as per IPCC AR5 report					
3	Mapping, Documentation, Development of CCVA information portal & publications					

Project 1.3 - Strengthening of knowledge products related to climate change and dissemination Developing extensive Information Education and Communication (IEC) & awareness material in local vernacular languages | Fully established Climate Change Advisory Centre (in DEST&CC); IEC and awareness material in predominant local language; Audio video modules for differently abled persons developed | Estimated Cost INR 8.9 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
DEST&CC	Section 2.11	Developing IEC and audio-video materials
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
1. Capacity building requirements on nature-based solutions and eco-DRR to be included in this study 2. Training and Capacity Building requirements on climate change resilience to be included 3. ICT initiatives to be included	1. Knowledge products for persons with special needs to be developed 2. All the IEC materials should include gender aspects 3. Participatory approaches should be adopted for development of knowledge products	All the materials should include core environmental aspects
Institutional capacity of nodal agency		
IA is equipped to execute the project		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Conceptualization and establishment of knowledge network hub on CC and DRR					
2	IEC and awareness material production					
3	Development of audio video modules					
4	Training programmes, Conferences					
5	Operationalization of knowledge network on CC and DRR					

Project 1.4 - Establishing State Institute for Disaster Management |Fully established HPSIDM in HIPA| Estimated Cost INR 29.8 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
DMC	Section 5.3	Establishing HPSIDM in HIPA with physical infrastructure
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
Ensure that the HPSIDM structure is disaster and climate change resilient	1. Building design should ensure accessibility to person with special needs 2. Construction design should include gender aspects 3. Implement gender action plan during construction and operation phase	1. Energy efficient Building and compliance with Griha V2019 4-STAR rating 2. Develop project-specific construction environment management plan including waste and traffic management plan in line with ESMF
Institutional capacity of nodal agency		
1. Manpower to be strengthened 2. Job descriptions should be developed for all the HR positions 3. Continuous training to be imparted for capacity building		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Infrastructure					
2	Training					
3	HR					

Project 2.1 - Developing EWS for landslide, flash floods, cloudbursts, GLOFs and Dam safety, Improving networks for flood forecasting + GIS-based Decision Support System | Well established GIS-based Decision Support System; Well established networks for flood forecasting system | Estimated Cost INR 120.2 Cr | Implementation Priority – Year 2/3		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
Nodal Agency – CWC Other implementing agencies - Dept. of Energy, HPPCL, HPPWD, BBMB, AGiSAC, HIMCOSTE	Section 5.4	1. Micro level multi hazard data collection and integrate them with EWSs 2. Effective DSS for all the hazards
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
Climate change-induced hazards should also be incorporated into the proposed EWS	1. Participatory approach should be adopted while implementation 2. Involving the local community in the process will be mandatory	Environmental considerations for landslides, flash floods, cloudbursts, GLOFs and Dam safety should be scrutinized.
Institutional capacity of nodal agency		
Structured Coordination and communication protocol should be developed		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	GIS Based Database for all Hazard	Data Generation Software Procurement	Data Generation and Quality control (QC)	Data Generation and	Data Verification, integration, and QC	Software
2	GLOF Sensors	Preparation of proposal/estimate, floating and evaluation of tender for Sensor and site visit	Procurement of water level Sensors & Integration	Procurement of 10 water level Sensors & Integration	Procurement of 5 water level Sensors & Integration	Integration
3	Flood Sensors	Preparation of proposal/estimate, floating and evaluation of tender for Sensor, site visit	Procurement of 15 water level Sensors & Integration	Procurement of 10 water level Sensors & Integration	Procurement of 5 water level Sensors & Integration	Integration
4	Training/ Exposer Visits	International Level	National/State Level	National/State Level	National/State Level	National/State Level
5	Data server DSS/Early Warning System for flood forecasting	Preparation of proposal/estimate, floating and evaluation of tender and site visit	Establishment of DSS & EWS in Sutlej basin and its integration at DDMAs and HPSDMA Level	Establishment of DSS & EWS in Beas basin and its integration at DDMAs and HPSDMA Level	Establishment of DSS & EWS in Ravi basin and its integration at DDMAs and HPSDMA Level	Establishment of DSS & EWS in Chenab & Yamuna basins and its integration at DDMAs and HPSDMA Level

Project 2.2 - Improving Last Mile Connectivity by enhancing the Satellite Network | Serviceable Satellite Networking for last mile connectivity | Estimated Cost INR 3.7 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
DMC	Section 5.9	Procurement of satellite phones
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
Ensure secure connection during disasters under all circumstances	1. Ownership of the satellite phones by a responsible person from the district EOCs should be fixed and informed to all concerned	No concern
Institutional capacity of nodal agency		
1. District EOC members should be given training on usage 2. Ensure the satellite phones are operational round the year 3. Structured coordination and communication protocol to be developed		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Procurement of Equipment					
2	Operation					

Project 2.3 - Developing climate/weather related forecast for agriculture and horticulture | Expanding the network of weather stations, real time observatories and digitization of administrative boundaries, polygon-based warning system for farmers | Estimated Cost INR 40.9 Cr | Implementation Priority – Year 2/3		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
Nodal Agency - IMD Other implementing agencies - Dept. of Agriculture and Farmers Welfare, Dept. of Horticulture, AGiSAC-HIMCOSTE	Section 5.4	1. Expanding the network of weather stations, 2. Real time observatories 3. Digitization of administrative boundaries, polygon-based warning system for farmers
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
1. Awareness on climate change resilience should be an integral part of this project 2. Short, medium, and long-range forecasts should be provided	1. Involve local community for ownership and maintenance of the infrastructures 2. Implement gender action plan during disseminating the information	1. Avoid ecologically sensitive sites for installation of weather stations
Institutional capacity of nodal agency		
IA is equipped to carry out the project		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Site selection, Tendering and DPR Preparation					
2	Site Survey at the time of installation					
3	GIS Based Boundary Delineation					
4	Installation/ Execution and commissioning					
5	Final Site Survey at the time of commissioning					
6	Farmer Alert platform and App Development					
7	Data Collection, 6 month training and onsite visits					
8	Final Warning and Dissemination					

Project 2.4 - Enhancing Implementation of forest fire mitigation measures including institutionalization of forest restoration process | Estimated Cost INR 43.2 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
Himachal Pradesh Forest Department	Section 5.9	1. Maintenance of fire-lines 2. Forest Fire Crew / Rapid Response Team Station 3. Establishment of wireless communication network 4. Improvement of moisture regime in highly vulnerable forests, spring shed development 5. Clearing of fire strip along roadsides
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
While establishing crew stations avoid hazard prone areas	1. Ensure participatory approach while implementation 2. Involve the local community in the process	Assess soil degradation after establishing fire lines Avoid cutting trees under protected category in Himachal Pradesh
Institutional capacity of nodal agency		
IA is equipped to carry out the project		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Maintenance of fire-lines	■	■	■	■	■
2	Forest Fire Crew / Rapid Response Team Station	■	■			
3	Procurement & deployment of tools & equipment	■	■			
4	Training, exposure visits and awareness	■	■	■	■	■
5	Establishment of wireless communicationnetwork	■	■			
6	Improvement of moisture regime in vulnerable forests, spring shed development	■	■	■	■	■
7	Clearing of fire strip along roadsides			■	■	
8	Community incentives				■	■

Project 2.5 -Creation of fire stations in unserved location for enhancing fire response with equipment and vehicles |Operational fire stations| Estimated Cost INR 57.9 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
Fire department	Section 5.5 and Section 3.10	Construction and procurement of equipment for 5 fire stations Procurement of equipment for 3 existing fire stations
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
1. Ensure the locations for proposed fire stations are not in hazard prone area 2. Ensure the structures are disaster and climate change resilient	1. Ensure zero resettlement 2. Assess temporary income loss of local people 3. Construction design should include gender aspects 4. Implement gender action plan during construction and operation phase	1. Sites should not be on forest land 2. Develop project specific construction environment management in line with ESMF
Institutional capacity of nodal agency		
IA is equipped to carry out the project		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Tender/Documentation					
2	Procurement of equipment for 3 existing fire stations					
3	Construction and subsequent procurement of equipment for the first and second Fire Station Buildings					
4	Construction and subsequent procurement of equipment for the third and fourth Fire Station Buildings					
5	Construction and subsequent procurement of equipment for the of fifth Fire Station Building					

Project 2.6 - Establishing SDRF 1 Company (Kangra) | Fully established and well-equipped company of SDRF at Kangra| Estimated Cost INR 110.1 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
Police Department (SDRF)	Section 5.4	Fully established and well-equipped company of SDRF at Kangra
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
1. Ensure the sites are not in hazard prone areas 2. Ensure the structures are disaster and climate change resilient	1. Facility should ensure accessibility to person with special needs 2. Construction design should include gender aspects 3. Implement gender action plan during construction and operation phase	1. Ensure energy-efficient building design and compliance with Griha V2019 4-STAR compliance rating 2. Develop project specific construction environment management plan including waste and traffic management plan in line with ESMF
Institutional capacity of nodal agency		
IA is equipped to carry out the project with external agency		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Infrastructure Development					

Project 2.7 -Creation of Helipads |Fully established Helipads and fire stations for emergency response at unserved vulnerable locations| | Estimated Cost INR 22.3 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
Nodal Agency – Dept. of Tourism and Civil Aviation Other Implementing agency - HPPWD	Section 5.13	Constructing helipads at the identified sites
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
1. Ensure the sites are not in hazard prone areas 2. Ensure the structures are disaster and climate change resilient	1. Ensure zero resettlement 2. Assess temporary income loss of local people 3. Implement gender action plan during construction and operation phase	1. Sites should not be on forest land 2. Avoid cutting trees under protected category in Himachal Pradesh 3. Develop project specific construction environment management plan in line with ESMF
Institutional capacity of nodal agency		
1. IA is equipped to carry out the project with external agency 2. Structured coordination and communication protocol to be developed		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Construction of helipads					
2	Training, Capacity Building & Exposer Visits					

Project 2.8 - Strengthening Training for Disaster Response | Improvement of existing 5 training centres for civil defence| Estimated Cost INR 10.1 Cr | Implementation Priority – Year 2/3		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
Civil Defence & Home Guards Department	Section 5.9	Establishing physical infrastructure for existing 5 training centres for civil defence
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
1. Ensure the sites are not in hazard prone areas 2. Ensure the structures are disaster and climate change resilient	1. Facility should ensure accessibility to persons with special needs 2. Construction design should include gender aspects 3. Implement gender action plan during construction and operation phase	1. Energy efficient Building and compliance with Griha V2019 4-STAR compliance rating 2. Develop project specific construction environment management plan including waste and traffic management plan in line with ESMF
Institutional capacity of nodal agency		
1. Manpower to be strengthened 2. Coordination is required with external agency to complete the project		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	DPR Preparation					
2	Construction of buildings					

Project 3.1 - Landslide mitigation and slope stabilization of vulnerable landslide sites| Estimated Cost INR 77.4 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
HPPWD	Section 3.7	Initiating mitigation works as per the DPRs
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
Mitigation measures are disaster and climate change resilient	1. Assess temporary income loss of local people 2. Ensure local employment as much as possible, emphasize on women employment 3. Establish a grievance redress mechanism for the project compliance 4. Consideration of gender issues during construction and operation phase 5. Ensure stakeholder consultation, information dissemination	Bio-engineering measures to be considered wherever possible
Institutional capacity of nodal agency		
1. Complete DPR with design and budget to be prepared along with suitable technology 2. IA is equipped to carry out the project		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Mitigation Works					

Project 3.2 - Developing area-specific bioengineering nurseries | Bioengineering interventions in the selected areas | Estimated Cost INR 30.1 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
Himachal Pradesh Forest Department	Section 3.7	1. Strengthening forest nurseries 2. Bioengineering field works 3. Restoration of riparian and stream bank ecosystem
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
1. Ensure implemented interventions are disaster and climate change resilient	1. Ensure there is no occupational health hazard during developing bioengineering nurseries 2. Ensure involvement of community in the process	1. Should not result in ecological imbalance due to introduction of bio-engineered species 2. Slope should be moist during the plantation 3. Determine combinations of works required as per the condition 4. Large scale topographical changes should be avoided with limiting the cut and fill activities in slope areas. 5. Ensure least number of tree felling and preserve topsoil for future use
Institutional capacity of nodal agency		
IA is equipped to carry out the project		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Strengthening forest nurseries for production of bed & tall plants					
2	Raising bed & tall plants in nurseries					
3	Bioengineering field works including geotextile application					
4	Restoration of riparian and stream bank ecosystem					

Project 3.3 - Creating Climate Change & earthquake resistant Technology Demonstration Units (TDUs| Fully operational Climate change and DRR TDUs | Estimated Cost INR 41.8 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
DMC	Section 3.5, 3.6, 3.8 and 3.10	Establishing TDU at the designated site
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
1. Ensure the structures are disaster and climate change resilient 2. Development of training calendars for TDU, particularly with natural hazards and DRR options	1. Habitation near the acquired land - Ensure zero resettlement 2. Need change in design for structure to accommodate passage for nearby inhabitants 3. Facility should ensure accessibility to person with special needs 4. Construction design should include gender aspects	1. Energy efficient Building and compliance with Griha V2019 4-STAR compliance rating 2. Develop project specific construction environment management plan including waste and traffic management plan in line with ESMF
Institutional capacity of nodal agency		
1. Manpower to the strengthened 2. Need job description for all the HR positions 3. Continuous training for capacity building 4. Participatory mechanism to be included in the structure 5. Structured Coordination and communication protocol		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Modification of DPR					
2	Construction of Building					
3	Installing models					
4	Training					
5	HR Cost					

Project 3.4 - Hazard resistant critical infrastructure | Safety audits conducted, and mitigation measures taken for schools, hospitals, Govt offices, fire, and police stations, etc. | Estimated Cost INR 40.4 Cr | Implementation Priority – Year 1		
Department/Agency	**Alignment with SDMP (relevant section)**	**List of Activities**
DMC	Section 3.5	Seismic retrofitting at the identified schools and hospitals
Climate Change and DRR aspects	**Social and Gender issues**	**Environment**
Ensure the structures are disaster and climate change resilient	Retrofitting design should include gender aspects	Moisture problems can underperform the retrofitting works
Institutional capacity of nodal agency		
1. Structured Coordination and communication protocol required		

Timeline

Sr. No.	Activities	Year 1	Year 2	Year 3	Year 4	Year 5
1	Dismantling & Retrofitting Work					

Annex 3: Overview of Program financial management arrangements

Abbreviations

*[**AFD**-French Development Agency; **AG**-Accountant General; **APFS**-Annual Program Financial Statements; **CER**-Contingency Early Response; **CWC**-Central Water Commission; **DMC**-Disaster Management Cell; **DDO**-Drawing & Disbursing Officer; **DPIU**- Divisional/District Program Implementation Unit; **EnC**-Engineer in Chief; **ExEn**-Executive Engineer; **FD**-Finance Department; **HoA**-Head of Account; **HoD**–Head of Department; **HPPWD**-Himachal Pradesh Public works Department; **HPSDMA**-Himachal Pradesh State Disaster Management Authority; **IA**-Implementing Agency(ies); **IMD**-Indian Meteorological Department; **LoC**-Letter of Credit; **SDNO**-State Departmental Nodal Officer; **UC**-Utilization Certificate]*

Particulars	DMC as Nodal Agency	Implementing Agencies (IA)
		GoHP Department(s) (including DMC as IA and as spending agency for CWC and IMD)
1) Annual Program Budget		
a. Regular Program expenditure	Collects spending proposals from all Program IAs, prepares consolidated Program budget and submits to FD & AFD	SDNO (normally the HoD) collects spending proposals from DPIUs, prepares consolidated Program budget proposal for the Department and submits to DMC
b. CER component	On decision to activate the CER Component, collects expenditure estimates from other IAs, prepares the CER Component budget, and submits to FD & AFD	SDNO prepares estimates under Budget Line identified/created for CER expenditure under the Program, and submits to DMC
2) Program Budget Distribution		
a. Works expenditure (deposit works mode)	Distributes total Program budget (works+other expenditure) to SDNOs of IAs on eVitran	• SDNO allocates budget on eVitran to SDNO-HPPWD (EnC of HPPWD) for deposit works by depositing the amount in Omnibus account for LoC • EnC, in turn, distributes allocation to DDOs within HPPWD (divisions/ sub-divisions) through deposit LoC
b. Non-works expenditure		Each SDNO further allocates budget to its DDOs on eVitran
3) Program spending		
a. Works expenditure (deposit works mode)	N/a	HPPWD DDO (ExEn) spends on execution of works using LoC channel and makes payments through the Treasury

Particulars	DMC as Nodal Agency	Implementing Agencies (IA)
		GoHP Department(s) (including DMC as IA and as spending agency for CWC and IMD)
b. Non-works expenditure	N/a	Departmental DDO incurs expenditure and makes payments through the Treasury
4) Expenditure Accounting		
a. Works expenditure (Deposit Works mode)	N/a	• Departmental SDNO books the amount transferred to HPPWD for Deposit Works under the relevant Program HoA on HIMKOSH • HPPWD Division renders compiled monthly accounts to the AG(A&E) and AG(A&E) does the accounting for deposit works (outside HIMKOSH) • HPPWD Division sends details of physical progress and expenditure incurred on deposit works to the respective Departmental SDNOs
b. Non-works expenditure	N/a	Departmental DDO records expenditure incurred against the respective Program Budget Lines on HIMKOSH
5) Utilization Reporting and Disbursement Claim		
Utilization Certificates	• Obtains self-certified UCs from Departmental IAs every quarter • Reconciles UCs with eVitran and HIMKOSH • Obtains IVA report for DLIs achieved under RBF Track • Prepares a half-yearly Disbursement Claim • Certifies and submits Disbursement Claim to AFD	• Departmental SDNO collects details of works expenditure from HPPWD • Compiles details of non-works expenditure incurred by Departmental DDOs from HIMKOSH • Prepares quarterly UC for Program expenditure (including works, non-works, and CER) and reconciles with eVitran/HIMKOSH • Self-certifies and submits UC to DMC
6) Annual Program Financial Statements (APFS)		
Annual Program Financial Statements	• Prepares APFS based on expenditure reported by IAs in quarterly UCs • Reconciles the APFS with eVitran and HIMKOSH • Obtains approval and submits APFS for audit within 3 months of close of Financial Year	N/a

Particulars	DMC as Nodal Agency	Implementing Agencies (IA) GoHP Department(s) (including DMC as IA and as spending agency for CWC and IMD)
7) Program Audit		
Program Audit	• Gets Program Audit done within 9 months from the end of the Financial Year by AG (Audit) • Submits audited APFS to AFD	Shares vouchers and source documents for Program audit and responds to audit queries

Annex 4: Verification Protocol for Disbursement Linked Indicators

DLI 1	**Mainstreaming Climate Change and Disaster Risk Resilience in the State**
Objective	To develop integrated climate action and disaster management plans in select sectors to limit and adapt to climate change (SDG 13)
Data Source/Agency	DMC, Himachal Pradesh Forest Department, Panchayati Raj Department, Municipal Council Chamba
Baseline	Policies and guidelines (for instance in flood prevention, landslide mitigation, dam safety) do not fully integrate disaster risk resilience and climate change aspects.

Target	**Verification Procedure**
Year 2 - Gram Panchayat Development Plan (GPDP) including climate action and disaster planning aspects is prepared and approved for Manikaran, Rangway & Palchan Gram Panchayats	• Obtain copy of resolution/order for approval of GPDPs. • Review the approved GPDPs to confirm inclusion of key elements: a) relevant gender & community engagement aspects, b) hazard risk, vulnerability and capacity analysis, c) institutional arrangements for disaster management, and d) disaster specific preventive and mitigation measures.
Year 3 – 3 Divisional and State Forest Fire Management Plan are prepared and approved	• Obtain copy of resolution/order for approval of Divisional and State Forest Fire Management Plans. • Review the Plans to confirm inclusion of a) an assessment of damages and impacts of forest fires, b) fire management strategies & plans with cost-benefit analysis, c) fire management practices, and d) capacities of stakeholders.
Year 4 - City Climate Action Plan (CCAP) for Chamba prepared and approved	• Obtain copy of resolution/order of Municipal Council for approval and adoption of CCAP. • Review the approved CCAP for inclusion of a) relevant gender & community engagement aspects, b) a framework for identifying and mainstreaming climate actions within city development plans, c) policies to reduce GHG emissions, and d) strategies to adopt low emission development trajectories and increase climate and disaster resilience.

DLI 2	**Improvements to Disaster Risk Reduction (DRR) Framework in the State**
Objective	To update key policy documents governing disaster management in the State
Data Source/Agency	DMC, DEST&CC
Baseline	The SDMP was last updated in 2020, DDMPs were last updated in 2017. HP Disaster Management and Relief Manual was last updated in 2012. Several climate change and biodiversity management studies have been conducted but there is no repository of findings and recommendations.

Target	**Verification Procedure**
Year 2 - Updated HP Disaster Management and Relief Manual notified	• Obtain copy of notification issuing the updated HP Disaster Management and Relief Manual. • Review the updated Manual to confirm inclusion of gender aspects and Emergency Procurement Guidelines.
Year 3 - Development of knowledge repository for climate change and biodiversity management	• Obtain self-declaration by DMC/DEST&CC of completion and launch of the knowledge repository. • Undertake review of key documentation like the requirements documents, user guide etc. • Undertake walkthrough of the knowledge repository.
Year 4 - All 12 District Disaster Management Plans updated and approved	• Obtain copy of notification/order for approval of updated District and State Disaster Management Plans. • Confirm that the approved Plans are available on the public domain. • Review the approved Disaster Management Plans for inclusion of a work plan to address requirements of the State Action Plan on Climate Change.
Year 5 - State Disaster Management Plan updated and approved	

DLI 3	**Mainstreaming Gender in Disaster Management**
Objective	To adopt gender sensitive policies and actions across the disaster management cycle
Data Source/Agency	DMC, Women and Child Development Department, Education Department, and Administrative Reforms Department
Baseline	No guidance/ policy document on gender inclusivity in disaster management.

Target	**Verification Procedure**
Year 1 - Diagnostic study on hindrances in mainstreaming gender in disaster management completed and recommendations accepted	• Obtain self-certification from GoHP stating the acceptance of recommendations made in the diagnostic study along with an action plan for implementation. • Review the Final Study Report.
Year 2 - Guidelines for mainstreaming gender in disaster management issued	• Obtain copy of notification/order issuing the Guidelines for Mainstreaming Gender in Disaster Management. • Review the approved Guidelines for inclusion of gender-inclusive assessments, gender design elements in strengthening disaster resilience, and in disaster recovery assistance. • Confirm availability of Guidelines on public domain.
Year 4 - At least 10 workshops held across the State for dissemination of the Guidelines	• Verify office circulars issued and attendance records of the Workshops. • Obtain a Workshop Completion Report from GoHP covering workshops' schedule, material used, attendance sheets, photographs and videos, and participant feedback summary. • Review the Workshop Completion Report to confirm a) at least 10 one-day workshops are held covering all districts of the State for dissemination of the Guidelines, and b) attendance includes government officials, local citizen groups, self-help groups, non-governmental organizations, and the general public as participants.
Year 5 - Notification of a policy document on gender mainstreaming in disaster management	• Obtain copy of notification/order issuing the Policy. • Review the Policy for coverage of different function like planning and management (HPSDMA, DDMA), training (HPSIDM), response (SDRF), etc. • Review syllabus of secondary/ higher secondary boards of the state as well as vocational courses to confirm inclusion of role of women in disaster management

DLI 4	**Improving disaster-responsiveness of the State's Public Finance Management (PFM) systems**
Objective	To strengthen the State's PFM architecture to enable enhanced disaster resilience
Data Source/Agency	DMC, Finance, Planning
Baseline	Key elements of DRR are not integrated into PFM policies and practices.

Target	**Verification Procedure**
Year 1 - DRR-PFM diagnostic study completed, and recommendations accepted	• Obtain self-certification from DMC/FD stating the acceptance of recommendations made in the diagnostic study along with an action plan for implementation. • Review the Final Study Report.
Year 2 - Emergency procurement guidelines notified	• Obtain copy of notification/order issuing the Emergency Procurement Guidelines. • Confirm availability of issued Guidelines on public domain. • Review the approved Guidelines for coverage of a) underlying circumstances for emergency procurement, b) delegation of financial powers, c) procurement methods, d) relaxations from normal procurement procedures, and e) the related internal and audit controls.
Year 4 - At least two policy-level recommendations of the DRR-PFM diagnostic study implemented	• Obtain copy of order/circular notifying two policy-level recommendations for implementation along with an action plan. • Obtain self-certification from DMC/FD confirming implementation of the two recommendations. • Verify related documentation (notifications/orders/circulars/letters etc.) to confirm implementation of the two selected policy recommendations.

DLI 5	**Implementing technology solutions for effective disaster mitigation and response**
Objective	To improve responsiveness, efficiency, and effectiveness of disaster management capability in the State
Data Source/Agency	DMC, Department of Tourism and Civil Aviation, HPFD, Department of IT
Baseline	Presently, IT solutions are not available for critical disaster management functions (except for water level monitoring by Dam Authority and CWC, and Weather forecast by IMD).

Target	**Verification Procedure**
Year 2 - Functional and Software Requirement Specifications signed off for: • Disaster Management Plans Monitoring System (DMPMS), • Tourist/Pilgrim Management System, and • Spatially Integrated Hazard Vulnerability and Household Information System	• Obtain self-certification/letter communicating the sign-off on Functional and Software Requirement Specifications submitted by the Vendor. • Verify related documentation for the three solutions including: a) Work orders and vendor contracts, b) Final requirements documents.
Year 3 - DMPMS implemented	• Obtain copy of notification/order for implementation of the DMPMS. • Undertake walkthrough of software to ensure coverage of key functionalities as per signed-off functional requirements. • Review related documents like a) rollout plan, b) user acceptance test reports, c) application user manuals. • Interact with users to confirm usage.
Year 4 - Tourist/Pilgrim Management System implemented	
Year 5 - Spatially-integrated Hazard Vulnerability and Household Information System implemented	

Annex 5: Fiduciary Systems Assessment

1) Weaknesses in the PFM systems of GoHP

Over the past years, GoHP has made concerted efforts to identify weaknesses in its PFM systems. These include Methodology for Assessing Procurement Systems (MAPS) Assessment in 2020, a Debt Management Performance Assessment (DeMPA) in 2019, and a Public Expenditure and Financial Accountability (PEFA) Assessment in 2009. These assessments have highlighted certain weaknesses highlighted below.

Methodology for Assessing Procurement Systems – MAPS Assessment, 2020

- Legal framework for Procurement is fragmented with many laws and rules which are not adequately coordinated in one document and therefore likely to create difficulty and inconsistencies in application by the procuring entities.
- There are no specific procurement provisions to deal with emergencies.
- Need for expanding financial rules to provide detailed instructions on negotiation with tighter oversight and control, introduce additional proven procurement methods like community driven development & practice and framework agreements.
- Improvements needed in consultative process for engaging with relevant stakeholders/ civil society for the public procurement system.
- Information regarding Annual Procurement Plan, contract performance is generally not available in public domain.
- HPFR 2009 and procurement documents do not explicitly mention public participation during any of the phases of procurement process.
- Under HPFR 2009 there is no mention of any appeals mechanism.
- Programmes do not exist to build capacity of public as a stakeholder in the PFM and procurements and sectoral initiatives such as DRR.
- Time frames are not established in the law for the GoHP to respond and implement audit recommendations.

Debt Management Performance Assessment – DeMPA, 2019

- A sound managerial structure is critical for efficient debt management function. At present, the managerial structure for debt management in GoHP is fragmented.
- Sharing of debt information between Finance and Planning Department within GoHP is done in an ad hoc manner.
- A medium-term debt management strategy covering the cost/risk trade-offs of alternative borrowings is not formulated.
- The internal audit function of debt management is not in place. Performance audit of debt management has not been conducted by the Accountant General (Audit).
- A debt sustainability analysis has not been undertaken. Sensitivity analysis of debt service for interest rate changes is also not done.

- An assessment of the most cost-effective terms and conditions of all financing sources is not conducted annually.

Public Expenditure and Financial Accountability – PEFA Assessment, 2009

- An elaborate framework of controls and checks and balances does exist. But weak implementation restricts it is working.
- The procurement rules need to be reviewed in line with the requirements of a modern system of State contracting.
- Internal Audit should be made functional in all departments and a risk-based approach needs to be followed to get the best out of the function.
- Overall PFM architecture in GoHP is weak. While the HPFR has been revised from time to time by issue of numerous circulars, the modifications have not been codified. The PFM architecture needs to be strengthened by a revision of the HPFR and Budget Manual.

To address the above weaknesses, GoHP has, over several years, made attempts to reform its PFM systems. Past reform projects include a PFM technical assistance project (2014-15) and the HP PFM Capacity Building Program (2017-23), with World Bank support. Key reform initiatives implemented in these reform projects include the following:

- Updates to the HP Treasury Rules;
- Rollout of a state-wide Integrated Financial Management Information System (IFMIS)-HIMKOSH, covering all expenditure points in the State;
- Formulation of a medium-term debt management strategy, development of a debt management manual and implementation of Debt Management Module of IFMIS;
- State-wide rollout of e-Procurement system covering all procurements above INR 0.5 million;
- Strengthening of the HPSAD and updating of the Audit Code;
- Improved tax administration through institutional strengthening of the Excise and Taxation Department – a large revenue earning department;
- Implementation of a Contract Management System in Jal Shakti Vibhag – a large works department;
- Enhanced public disclosure of fiscal information.

These reform initiatives have strengthened the overall PFM architecture in the State – more specifically revenue and expenditure management, cash and debt management, public procurement, and internal control and oversight systems. The GoHP is in talks with the World Bank for a follow-on PFM reform project. Under the proposed project, the State proposes to leverage the IFMIS, e-Procurement and other systems to significantly improve service delivery in key functions like Health, Education, Urban Development, District Administration and so on. A Commitment Control System is also proposed to be implemented that would integrate key GoHP e-Governance applications with IFMIS. Further, the GoHP intends to use the power of data analytics to generate insights for better governance. The new Program is therefore expected to continue the PFM reform trajectory set in the past decade.

However, certain weaknesses and challenges continue to exist in the PFM ecosystem of GoHP. These include:

- **Archaic PFM Rules**: The HPFR 2009, modeled on the General Financial Rules of the Government of India (GFR), are due for an update. The GFR went through a comprehensive upgrade in 2017 and the consequent changes are yet to be incorporated in HPFR 2009. Further, the HP Budget Manual was originally brought out in 1971, but subsequently repealed. There is a need to update and reissue the same to incorporate subsequent changes in processes, introduce technology enabled processing, and introduce better linkages between budget outlays and development outcomes.
- **Fragmentation in legal framework for procurement**: It is essential to bring all rules and pronouncements related to public procurement under a single umbrella, either as an amendment to HPFR 2009 or as exclusive legislation on Procurement. Presently (2023), 116 GoHP entities are undertaking procurement. HPFR 2009 and HP Stores Purchase Rules, 2013 are overarching rules governing procurement. Additionally, procurements are covered in a host of other manuals, circulars, and notifications. The multiplicity leads to complexity in enforcement and confusion amongst stakeholders.
- **Absence of internal audit**: Presently, there is no system of internal audit in GoHP departments. There is a system of 100% pre-audit of expenditure vouchers. However, the pre-audit system operates more as an additional layer of internal control and not as a risk-based internal audit. A risk-based internal audit system can help the State in achieving better expenditure outcomes and in strengthening its internal control mechanism.
- **Gaps in completeness of information provided by eKosh**: eKosh is the reporting module of HIMKOSH. eKosh is a powerful reporting tool and provides near real-time information on transactions recorded on the Treasury system. However, the information on eKosh is incomplete to the extent of: (i) Budget Head-wise tracking of expenditure incurred by HPPWD and Jal Shakti Vibhag under the Letter of Credit system, and (ii) Adjustment and other entries passed by the AG(A&E) while compiling the monthly/annual accounts of GoHP.

2) Key fiduciary risks and corresponding mitigating actions

Table 15: Assessment using the AFD's Doctrine shows a detailed FSA based on Method 3 enshrined in the AFD's Doctrine, presented against the 12 PEFA Indicators. The assessment relies upon (i) findings of previous assessments, (ii) replies to questionnaires prepared in line with the AFD's Doctrine and the PEFA Framework, and (iii) interviews of key officials of GoHP. The assessment is not intended to rate specific indicators but limited to assess, based on empirical evidence, the current PFM system in GoHP.

Table 15: Assessment using the AFD's Doctrine

No	PEFA Indicator (PI)	Description	Key parameters assessed	Key risks and gaps (from the Program perspective)	Mitigation action (under the Program)
D1 – Budget Credibility					
1	PI-2	Composition of expenditure executed	• Expenditure outturns composition usually observed over last few reporting periods • Extent of outturns in excess of the limits and corrective actions taken • Policy initiatives and other post-budget spending decisions outside the annual budget process • Allocation of grants and other budgetary support by development partners outside the annual budget cycle • Extent of accumulated arrears of the previous periods • Age of the arrears • Monitoring process of the arrears–policies and measures thereof • Process to measure expenditures outside government financial reports (basically out of Treasury Single Account and IFMIS)	• The expenditure outturns composition overall may remain within limits but the inter-departmental virements may be high. • Allocation of grants and other budgetary support by development partners outside the annual budget cycle may happen. • There is no formal system to track accumulated arrears of expenditures and thus ageing and monitoring of expenditure arrears is not possible. • HIMKOSH allows tracking of Program expenditure against specific Budget Lines only and not by Program Activities / Projects. • Expenditure on Deposit Works is accounted against a single Budget Line (called Omnibus Head of Account) on HIMKOSH.	• Program expenditure will be initially met from the State budget. All payments, including those under the LoC system for Deposit Works and CER, shall be made through the Treasury and recorded on HIMKOSH. HIMKOSH enables mapping Program budget allocations to each DDO by specific Budget Lines, ensuring good budget control. • The allocations are mostly routed through HIMKOSH. For granular tracking of Program expenditure against Program Projects/Activities in the PEF, the DMC would maintain subsidiary records in physical/electronic form, and periodically reconcile the expenditure figures with HIMKOSH. • For detailed monitoring of Deposit Works expenditure, the DMC/IAs would rely on UCs furnished by HPPWD.
2	PI-22	Expenditure arrears			
3	PI-6	Central government transactions not recognized in the financial statements			
D2 – Effectiveness of expenditure execution and control procedures					
4	PI-23	Control of pay statements	• Main components / break-up of the payroll • Payroll is supported by full documentation for all changes made to personnel records each month	• Inadequate controls over payrolls and non-salary expenditures may creep in due to:	• The DMC shall prepare the half-yearly Disbursement Claim, under the Reimbursement Track and RBF Track, and submit it to the AFD for approval.
5	PI-24	Management of contracting			

No	PEFA Indicator (PI)	Description	Key parameters assessed	Key risks and gaps (from the Program perspective)	Mitigation action (under the Program)
6	PI-25	Internal control of non-salary expenditures	• Controls on personnel hiring and promotion • Procurement methods and monitoring for the Procure-to-Pay (P2P) process • Procedure manuals, instructions, etc. for internal controls over non-salary expenditures	- absence of a complete Human Resource Management solution to manage Hire-to-Retire process. - Procedure manuals, instructions, etc. for internal controls over non-salary expenditures not consolidated at a single place. - inadequate procurement methods and monitoring of the P2P process due to absence of consolidated rules and SBDs. • The salary / payroll expenditures are regulated by Receipts & Payment Rules (1983) and controlled through approval by the Council of Ministers of the State (State Cabinet) and online Manav Sampada portal (for salary, increments and promotions aspects). For the non-salary expenditures, Delegation of financial powers of the GoHP governs the process. • Legal framework for procurement is fragmented with many laws and rules which are not adequately consolidated in one document and therefore likely to create inconsistencies in application. • HPFR 2009 and the Himachal Pradesh Infrastructure Development Act - 2001 do not provide for bidders' right to challenge and appeal award decisions at time of award. • There are no specific procurement provisions to deal with emergencies.	This would ensure expenditures are accounted, disclosed and only eligible expenditures are reimbursed. • The DMC shall submit an Annual Procurement Plan and Annual PEF for the Program to AFD and obtain a No Objection Certificate. The Annual Procurement Plan will be prepared immediately after the annual Program budget is approved. Additionally, the DMC shall submit an updated Annual Procurement Plan to AFD semi-annually. • All Program IAs shall use the GoHP's e-Procurement portal for procurements under the Program. • For procurement of works, GoHP's Standard Bidding Documents (SBD) (used by HPPWD and Jal Shakti Vibhag) will be used. • For goods, services, and consultancy procurements, SBD of the World Bank will be followed. • Where available, goods shall be procured on the Government e-Marketplace (GeM). • GoHP's shall include a Statement of Integrity in all SBDs in a format acceptable to AFD. The Statement of Integrity shall be obtained from the selected vendors at the time of award and execution of contract.

No	PEFA Indicator (PI)	Description	Key parameters assessed	Key risks and gaps (from the Program perspective)	Mitigation action (under the Program)
				• Regulatory framework does not have detailed rules on selection of consultancy services. • Rules do not mandate issuance of standard / model bidding documents. • HPFR 2009 is silent on professionalization of procurement function and debarment provisions. • Inadequate Participation of civil society in consultative process for public procurement system.	
D3 – Reliability of accounting procedures and financial reporting					
7	PI-27	Integrity of financial data	• Timing, coverage, and data requirements for financial reporting. • Reconciliation process. • Suspense account monitoring. • Advance account monitoring. • Rules, regulations or procedures, access to and recording of changes to records. • Process of verifying financial data integrity. • Process of preparation of comprehensive budget execution report. • Process of commitment and expenditure control against budgets. • Process to ensure adequate coverage and comparability of financial reports with approved procedures / frameworks. • Annual financial reports should be complete and exhaustive. For this the reports should include an analysis providing for a comparison of the outturn with the initial	• Formal system for commitment and expenditure control against budgets and review of coverage and comparability of financial reports with the approved budgets does not exist. • HIMKOSH captures only Treasury transactions. This leaves out adjustments made by the AG(A&E) in compiling the accounts of GoHP. Also deposit works are booked under Omnibus Head of Account in HIMKOSH and expenditure details by specific Heads of Account are compiled by the AG separately and are not available in HIMKOSH.	• Budget execution details are recorded online on real time basis and are available in public domain and annual financial reports are prepared. • All payments, including those under the LoC system for Deposit Works and CER, shall be made through the Treasury and recorded on HIMKOSH. HIMKOSH enables mapping Program budget allocations to each DDO by specific Budget Lines, ensuring good budget control. • GoHP follows the cash basis of accounting, under which expenditure is accounted in HIMKOSH only when the underlying bills are paid. HIMKOSH shall serve as the primary source of information for reporting Program expenditure, and submission of claims.
8	PI-28	In-year reports on budget implementation			
9	PI-29	Annual Financial Reports			

No	PEFA Indicator (PI)	Description	Key parameters assessed	Key risks and gaps (from the Program perspective)	Mitigation action (under the Program)
			government budget. Financial reports should include full information on revenue, expenditure, assets, liabilities, guarantees, and long-term obligations. How is this process ensured? • Process of submission of reports for external audit.		• For granular tracking of Program expenditure against Projects/Activities in the PEF, the DMC would maintain subsidiary records in physical/electronic form, and periodically reconcile the expenditure figures with HIMKOSH. For detailed monitoring of Deposit Works expenditure, the DMC/IA would rely on UCs furnished by HPPWD.
D4 – Quality of external audits and controls					
10	PI-30	External audit	• Policies to ensure adequate and commensurate scope and coverage of audit, as well as adherence to auditing standards. • Policies and procedures for EAP audits. • Existence of performance audit, social audit, impact evaluation done. Policies and procedures thereof. • Mechanism for follow-up of audit arrears and of observations pending implementation. • Process for review and implementation of the recommendations of Public Accounts Committee [PAC].	• Formal process and Manuals for audit of Externally Aided Projects are not in place. • There is no system of Internal audit in GoHP. • There are delays in audit and audit observations arrears.	• Program audit would be undertaken by the Principal Accountant General (Audit) of HP in response to an Audit Terms of Reference issued by GoHP. The audit arrangement would be in line with the arrangements presently followed by the GoHP for other EAPs. The DMC would prepare an Annual Program Financial Statements (APFS) and submit the same for audit within three months from the end of each Financial Year. The timeline for completion of audit shall be nine months from the end of the Financial Year. • IAs would submit self-certified UCs for the expenditure incurred by them. • A mid-term evaluation by an external agency and End-of-Program Performance Audit by the Principal Accountant General (Audit) of HP shall be undertaken.
11	PI-18	Legislative review of budgets			
12	PI-31	Legislative review of audit reports			

Annex 6: Disaster Resilient and Responsive Public Financial Management (DRR-PFM)

Assessment of present PFM Systems in GoHP to adopt the DRR-PFM framework

The PFM Assessment aspects covered herein are to be considered in context of the budgeting, accounting, reporting and procurement for disaster risk reduction programs and particularly where emergency response funding is envisaged. This Annex is based on the DRR-PFM Toolkit from World Bank Group.[33] A dipstick assessment of GoHP PFM systems for DRR-PFM and / or important aspects are given in *italics*.

Module 1 [M1]: Legal and Institutional framework

The efficacy of post-disaster response depends on clear rules and institutional arrangements for planning, mobilizing, appropriating, and executing financial resources to support post-disaster relief and recovery. Public finance rules should be specified in a budget law—or set of laws— that lays out the procedures and specifies the responsibilities of the key public finance actors in the context of disasters. Two indicators are used to assess the extent to which there is clarity on the public finance operational framework that is instituted to expedite the government's response during and after natural disasters and similar emergencies:

M1.1: Post-disaster PFM rules. Extent to which legislation and procedures specify what specific budgetary processes are prescribed in the context of disaster response, when these budgetary steps should be taken, and who is responsible. Legislation should define the conditions in which these post-disaster rules should apply and for how long.

Currently, no provisions exist in the Himachal Pradesh Financial Rules [HPFR 2009] for emergency spending and post-disaster reporting. HP Budget Manual 1971 has been repealed.

M1.2: Institutional arrangements for managing post-disaster financing. During a state of emergency, clear, streamlined institutional mechanisms are needed to: enable the transmission of data, information, and decisions between the finance department and emergency response agencies; expedite approval processes and the flow of funds; and ensure the appropriate use of mobilized resources.

Institutional mechanisms to execute the financing of post-disaster relief and recovery operations in accordance with the legal and regulatory framework are not clearly defined. Partial legal and regulatory framework for post-disaster relief and recovery operations exist in HP Disaster Management and Relief Manual (2012), and only few guidelines exist for such operations. Information exchange is in the shape of physical reporting.

[33] Disaster Resilient and Responsive Public Financial Management: An Assessment Tool (worldbank.org)

Module 2: Budget Appropriation

A significant part of the financing for disaster response and recovery will be channeled through the State budget. Appropriate provisions for disasters before they occur can significantly reduce fiscal risks and greatly enhance a government's ability to provide victims with aid immediately after a disaster when they may need it most. Ex-ante budgeting for disasters can boost savings, reduce risk exposure, and promote aggregate fiscal stability. Budget frameworks that allow greater flexibility after disasters increase government's response capacity by allowing quick redeployment of expenditures across budget lines. The post-disaster redeployment of resources must be done transparently and following clearly defined procedures to maintain citizen's trust. The following parameters are required to be assessed the extent to which HP's budget is responsive and flexible enough to finance timely post-disaster relief and recovery operations.

M2.1: Budget planning for disaster relief and recovery. Extent to which various sources for financing disaster relief and recovery (including reserve funds, contingent spending arrangements, contingent loan facilities, risk transfer instruments) are predetermined, programmed, and managed to optimize the government's financial response capacity without compromising fiscal balances or development objectives should be documented.

Apart from NDRF and SDRF funds, there is no other budget provision for disaster relief and recovery. Budget is provided through eVitran under Major Head 2245. There is flexibility in re-appropriation at Finance Department level which is regularized in the State Legislature as supplementary Demand for Grant. Every Deputy Commissioner and Sub Divisional Officer Civil has been allowed an imprest amount INR 1 Million and INR 0.5 Million, respectively.

No other Budget Head exists for disaster relief and recovery specifically or within other general Budget Heads. Prior plans for NDRF/SDRF funds are not prepared – funds are used when disasters occur.

M2.2: Budget flexibility for post-disaster relief and recovery. Clear rules for in-year adjustments to national and overall state and budget by the government after legislative approval that allow for a timely and flexible response to unforeseen external shocks such as natural disasters should exist along with various means to supplement and/or reallocate approved appropriations across and within the budgets of government ministries, departments, and agencies (MDAs) in response to a disaster and the limits on the extent and nature of any such adjustments. Approval times by government and other PFM actors, such as the legislature, and the clarity of the reallocation procedures are also to be considered.

The current Rules and procedures allow flexibility in budget for re–appropriation and limit for imprest mentioned in M2.1. The competent authority can adjust the budget allocations in-year in case of emergencies. However, the processes for re-appropriation, budget out-turns and virements for disaster related emergencies are not clearly defined. Rules for in-year adjustments to the budget and legislative approval processes that allow for a timely and flexible response to unforeseen external shocks are also not defined.

Module 3: Financial Management Controls

The management of public resources in response to disasters should ensure that stakeholders are held accountable for the way they use public resources and exercise authority. This module focuses on evaluating the controls that are in place to ensure that post-disaster relief and recovery financial resources are used as intended in a transparent manner. It assesses whether there is: appropriate supervision of officers and separation of financial duties to mitigate the risk of corruption; adequate record keeping allowing for proper monitoring and audit; and sufficient information system resiliency. There is flexibility in budget for re –appropriation and Limit for imprest fixed as discussed above and respective authority can adjust this amount in year.

M3.1: post-disaster expenditure controls. Extent to which the segregation of duties, or other controls, are applied in the authorization of expenditures, transaction processing, custody, and recording functions during post-disaster situations are not defined and documented. Separation of functions is one of the most important features of an internal control plan that reduces the risk of fraud or expropriation.

Orders/circulars providing the procedures for emergency expenditure review and controls post-disaster are not in place. There is no formal process defined for issuance of such order/circulars.

M3.2: Post-disaster spending traceability. The extent to which post-disaster relief and recovery financial transactions can be tracked and verified ex-post requires attention. It assesses the availability of reliable, relevant, and timely information about funding allocations, procurement, implementation progress, and contract management.

Spending traceability is adequate through HIMKOSH (eKosh, eVitran), e-Procurement system etc. However, the process for tracing expenditure during emergencies and disasters and linking them to the appropriate orders / circulars is not clearly documented. Further, if during an emergency, bypassing e-Procurement system is allowed, then traceability could be an issue. Procedures to mitigate risks inherent to the above weaknesses are not formalized. Information on expenditure through Treasury is available. However, traceability of spending from Deposit Works / LoC mode by executing agencies such as HPPWD/ Jal Shakti Vibhag/ Local bodies is poor. This can be made possible through a PFMS-like portal.

M3.3: External control and legislative scrutiny. The extent to which post-disaster relief and recovery expenditures are internally and independently reviewed, with sufficient frequency, to ensure compliance with legislation and regulations. It includes a review of the instruments that the legislature and supreme audit institution can deploy to oversee the use of funds during the disaster or reconstruction phase, and the sanctions or remedies that can be applied.

External controls such as audit by C&AG and legislative control through Public Accounts Committee are available, but internal control mechanism is not adequate.

M3.4: Resiliency of information systems and vital records. The current public financial management information systems and digital records, including vital registries and financial transactions, can withstand the impacts of a catastrophic event.

HIMKOSH - GoHP's IFMIS - runs on cloud servers provided by National Informatics Centre, with backup sites across India. Information on similar arrangements for the e-Procurement system and backup and disaster recovery plans is not readily available.

Module 4: Public Procurement

Timely disaster response may require the procurement of goods and services through expedited procedures. Such expedient procedures should ensure adequate accountability, transparency, and overall value for money, considering quality, cost, and time of delivery. Ideally, public finance legislation reviewed under Module 1 should prescribe the public procurement procedures that can be followed a disaster. More detailed instruments and instructions should supplement legislation, providing guidance on how to apply the legislation in specific post-disaster circumstances. Review of scope of operational tools at the implementing agency level to guide expedited purchases is required to be specified.

M4.1: Procurement planning for emergencies. Whether market research, sourcing strategies, framework agreements, memorandums of understanding, and/or other strategic initiatives are considered at the planning stage of the procurement cycle to optimize approaches for making purchases in response to the immediate and serious needs that may arise from unanticipated disaster threats.

A policy formulation on these matters is not in place.

M4.2: Emergency procurement procedures. The extent to which procuring entities with emergency responsibilities have access to standard operating procedures (SOPs), handbooks, user guides, or other manuals that instruct how procurement is to be conducted in post disaster situations.

The HP Disaster Management and Relief Manual needs to be revised and updated to include DRR-PFM related aspects.

M4.3 Model documents for emergency procurement. Model documents and templates that inform the formulation of procurement documents to purchase goods, works, and services in post disaster situations. This indicator also assesses whether implementation conditions are specified in these documents and the extent to which these clarify the conditions under which contractors may perform agreed activities prior to submitting prices.

Standard / Model Bidding Documents are not in place.