

# Project Readiness Financing Project Administration Manual

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Project Number: 53189-001  
Loan Number: {PRFXXXX}  
November 2020

India: Himachal Pradesh Subtropical Horticulture,  
Irrigation, and Value Addition Readiness Project

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## **LIST OF ATTACHMENTS**

Attachment A. Terms of Reference for Consulting Services

Attachment B. Procurement Plan

Attachment C. Quarterly Progress Report Template

Attachment D. Standard Terms of Reference for the Audit of ADB-assisted Projects

Attachment E. Detailed Grievance Redress Mechanism

Attachment F. Environment Protection Guidelines

Attachment G. Sample Memorandum of Understanding for Donation of Farmers' Land under the PRF

Attachment H. Involuntary Resettlement Impact Categorization Checklist

### **Project Administration Manual for Project Readiness Financing: Purpose and Process**

The project administration manual (PAM) for project readiness financing (PRF) is an abridged version of the regular PAM of the Asian Development Bank (ADB) and describes the essential administrative and management requirements to implement PRF following the policies and procedures of the government and ADB. The PAM should include references to all available templates and instructions either by linking to relevant URLs or directly incorporating them in the PAM.

The Department of Horticulture (DOH, executing and implementing agency), and the Department of Irrigation and Public Health (DIPH, implementing agency), are wholly responsible for the implementation of ADB-financed PRF projects, as agreed between the borrower and ADB, and following the policies and procedures of the government and ADB. ADB staff are responsible for supporting implementation, including compliance by DOH and DIPH of their obligations and responsibilities for PRF project implementation following ADB's policies and procedures.

In the event of any discrepancy or contradiction between the PAM and the loan agreement, the provisions of the PRF loan agreement will prevail.

After ADB's approval of the PRF proposal, changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval, they will be subsequently incorporated in this PAM.

## ABBREVIATIONS

ADB	Asian Development Bank
CAG	Comptroller and Auditor General
CDR	climate and disaster risk
CHPMA	Community Horticulture Production and Marketing Associations
DOF	Department of Finance
DIPH	Department of Irrigation and Public Health
DoH	Department of Horticulture
DOP	Department of Planning
EA	Executing Agency
EARF	environmental assessment and review framework
EC	Executive Committee
ECOP	Environmental Codes of Practice
EMP	Environmental Management Plan
FMA	financial management assessment
GC	Governing Council
GoHP	Government of Himachal Pradesh
GRM	Grievance redress mechanism
HP	Himachal Pradesh
HPSHIVA	Himachal Pradesh Subtropical Horticulture, Irrigation and Value Addition
IA	implementing agency
IP	Indigenous People
M&E	monitoring and evaluation
MIS	Management Information System
O&M	operations and maintenance
PAM	project administration manual
PCR	project completion review
PMU	project management unit
PY	project year
PRF	Project Readiness Financing Report
QCBS	Quality and Cost Based Selection
RFQ	request for quotation
SOE	statement of expenditures
SPS	Safeguard Policy Statement

## I. IMPLEMENTATION PLAN

**A. Overall Project Readiness Financing Project Implementation Plan**

### Table 1: PRF Implementation Plan

[illegible]

<b>Project year</b>	<b>2020 (retroactive financing)</b>				<b>2021</b>				<b>2022</b>			
<b>Activities</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
3.2.5. Nursery technical development firm contracted (pending activity depending on the project savings)												
3.2.6. Nursery technical development supported (pending activity depending on the project savings)												
<b>Activity 3.3: Farmer capacity building for climate resilient horticulture practice (by DOH)</b>												
3.3.1. Consultant recruitment and university engagement finalized to prepare PoPs												
3.3.1. PoPs for key subtropical horticulture crops (linked to 3.2.1 and 3.2.2)												
3.3.2. CHDMA + DOH staff training of PoPs												
3.3.3. PoPs revised based on the PRF implementation experience												
<b>Activity 3.4: DIPH capacity building for WUA-based water use management (by DIPH)</b>												
3.4.1 Consulting firm contracted (on climate resilient irrigation, hydrology and natural resource management)												
3.4.2. DIPH staff training plan/materials developed by consultants and DIPH specialists												
3.4.3. DIPH national irrigation innovation study tour (delayed due to the COVID-19)												
3.4.4. DIPH trainings												
<b>Activity 3.5: Scientific horticulture monitoring (by DOH and DIPH)</b>												
3.5.1. Contracting scientific studies of horticulture crops <sup>b</sup>												
3.5.2. Contracting scientific studies of irrigation systems												
3.5.3. PRF monitoring <sup>c</sup>												
<b>Output 4. Ensuing investment project and its implementation readiness prepared (by DOH and DIPH)</b>												
<b>Activity 4.1. Prepare ensuing loan RRP and associated documents (by DOH and DIPH)</b>												
4.1.1. At least 40% of the project target areas jointly identified by DOH and DIPH considering criteria provided by the project												
4.1.2. Consulting firm contracted (for DOH and DIPH)												
4.1.3. Feasibility studies of at least 40% of the areas conducted												
4.1.4. Detailed design of 40% of the HPSHIVA irrigation infrastructure (DIPH)												
4.1.5. Detailed design of 40% of the HPSHIVA VC infrastructure design (DOH)												
4.1.6. Draft HPSHIVA RRP prepared and draft procurement plan approved												
4.1.7. Farmer group facilitator contracted (linked to 2.2.4) (DOH)												
4.1.8. Farmer groups (for the ensuing loan) established and surveyed (DOH)												
4.1.9. Water User Associations (for the ensuing loan) established (DIPH)												
4.1.10. Additional 20% area identification and its feasibility studies conducted (under the retroactive financing of the ensuing project)												
<b>Activity 4.2. Project readiness requirements for the ensuing loan (by DOH and DIPH)</b>												
4.2.1. At least 50% of land acquisition (if required) completed												
4.2.2. Enthusiasm project horticulture production and predator-proof fencing tendered (DOH)												
4.2.3. Enthusiasm project irrigation infrastructure construction tendered (DIPH)												
4.2.4. Bids evaluated (DOH and DIPH)												
4.2.5. Enthusiasm loan PMU established												
4.2.6. Enthusiasm loan PMU consultants recruited												
4.2.7. Consultants for the ensuing project implementation recruited												

Project year	2020 (retroactive financing)				2021				2022			
Activities	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4.2.8. Bids for contract worth at least 30% of the project cost received by fact-finding mission												
4.2.9. Consulting awards completed and at least 30% contracts for civil works awarded before loan signing												
<b>Management Activities (by PMU)</b>												
Submission of quarterly progress report												
Submission of annual report												
Submission of APFS												
<b>Ensuing Loan Processing (by GoHP and ADB)</b>												
Ensuing loan fact finding mission in April 2022												
Ensuing loan quality assurance meeting in May 2022												
Ensuing loan negotiation in July 2022												
Ensuing loan approval in September 2022												
Ensuing loan signing in October 2022												
Ensuing loan effectiveness in December 2022												

ADB = Asian Development Bank, APFS = audited project financial statement, CHPMA = community horticulture production and marketing association, GoHP = Government of Himachal Pradesh; HPSHIVA = Himachal Pradesh Sub-tropical Horticulture, Irrigation and Value Addition Project, PoPs = Package of Practices, PRF = project readiness financing, RRP = ADB Report and Recommendation of the President; WUA = water user association.

<sup>a</sup> The guidelines of selecting irrigation schemes included selecting the following 5 types of subprojects: (i) an existing high head pump scheme that can demonstrate the above components; (ii) an existing weir or river bed infiltration water source and gravity supply and distribution system; (iii) a small dam and gravity supply piped scheme; (iv) a system with catchment management interventions, tank storage and gravity supply; and (v) free intake on larger river and low head, solar powered pumping. The selection criteria applied are: (i) schemes where the main system has recently been completed or will shortly be completed; (ii) existing irrigation schemes requiring rehabilitation in preference to greenfield sites; (iii) gravity fed or low lift solar powered pump schemes in preference to high lift schemes; (iv) opportunities for innovation in system design and additional water storage; (v) stable terraces with suitable soils; and (vi) willing male and female smallholder landowners.

<sup>b</sup> These studies will be contracted by the PMU during implementation. The subjects to be studied will be identified as the project implementation evolves e.g. pest and weed management, plant nutrition, plant husbandry, irrigation frequency, market analysis, etc.

<sup>c</sup> The subjects to be monitored will include farmer attitude surveys, monitoring of seedling viability, and assessments of group activity/cohesiveness.

Source: Asian Development Bank

## II. PROJECT MANAGEMENT ARRANGEMENTS

### A. Project Implementation Organizations: Roles and Responsibilities

**Table 2: Project Implementation Organizations: Roles and Responsibilities**

PRF Project Implementation Organizations	Management Roles and Responsibilities
<b>A. Oversight body</b>	<p><b>Governing Council</b></p> <ul style="list-style-type: none"> <li>(i) Overall coordination of the sector investment projects in the state</li> <li>(ii) Interdepartmental coordination of the project</li> </ul> <p><b>Executing Committee<sup>b</sup></b></p> <ul style="list-style-type: none"> <li>(i) Overall coordination of the project</li> <li>(ii) Provide necessary policy guidance related to project implementation</li> </ul>
<b>B. Executing agency (EA)</b>	<p><b>DOH through the PMU</b></p> <ul style="list-style-type: none"> <li>(i) Oversee and monitor project implementation as well as the adequacy of overall project funding</li> <li>(ii) Project progress reports</li> <li>(iii) Project account management by establishing and maintaining project account, submitting withdrawal applications and administer statement-of-expenditure and maintain supporting documents</li> <li>(iv) Complete loan financial records</li> <li>(v) Day-to-day project execution, supervision and management</li> <li>(vi) Monitor and provide updated procurement plan to ADB</li> </ul>
<b>C. Implementing agencies (IA)</b>	<p><b>DOH and DIPH through the PIUs (one PIU in each department)</b></p> <ul style="list-style-type: none"> <li>(i) Oversee day-to-day project execution, supervision and management</li> <li>(ii) Consultant recruitment and procurement of goods, works and non-consulting services</li> <li>(iii) Collect necessary inputs to prepare quarterly and annual project progress reports environmental and social monitoring reports, and the project completion report.</li> <li>(iv) Carry out quality assurance review to ensure that subprojects meet established project standards.</li> <li>(v) Open, operate and maintain the advance account and supervise subaccounts, prepare project accounts and financial statements for DOH and DIPH each and thereafter EA/DOH's compilation of financial report and the audited project financial statements into one file, and process payments to contractors/consultants/suppliers</li> <li>(vi) Conduct financial, environmental, and social due diligence for proposed subprojects as necessary in consultation with relevant government agencies and ADB</li> <li>(vii) Carry out project grievance redress mechanism</li> <li>(viii) Supervise consultants' work and provide timely guidance</li> </ul>
<b>C. Beneficiaries</b>	<p><b>WUAs (composed of villagers and elected by villagers)</b></p> <ul style="list-style-type: none"> <li>(i) Ensure community engagement in irrigation system design</li> <li>(ii) Prepare seasonal water use plans for WUA irrigation area.</li> <li>(iii) Monitor water use by group members</li> <li>(iv) Form higher level organizations that progressively take up the management of irrigation schemes.</li> <li>(v) Establish subcommittees (water management, O&amp;M, etc.).</li> <li>(vi) Record water fee collection and report to block/district DIPH.</li> </ul> <p><b>Community Horticulture Production and Marketing Association (CHPMA) (composed of villagers and elected by villagers)</b></p> <ul style="list-style-type: none"> <li>(i) Coordinate the horticulture development planning practice by the beneficiary male and female farmers</li> </ul>



PRF Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> <li>(ii) Submit applications to PMU for horticulture crop establishment grant financing</li> <li>(iii) Manage the allocation of grant financing to group members</li> <li>(iv) Coordinate group member capacity building programs</li> <li>(v) Liaise with public and private sector market operators</li> <li>(vi) Form higher level organizations to establish public-private partnerships for value addition and improved market access.</li> </ul>
<b>D. Consultants</b>	<p>Construction supervision</p> <ul style="list-style-type: none"> <li>(i) Construction supervision and contract monitoring of 16 irrigation schemes</li> </ul> <p>Horticulture sector strategy and investment plan preparation</p> <ul style="list-style-type: none"> <li>(i) undertake a desk review of relevant activities conducted by government or other development partners on the selected horticulture commodity value chains</li> <li>(ii) establish public-private engagement platforms for market-based horticulture value chain strategic planning</li> <li>(iii) conduct value chain analyses for each of the selected horticulture commodities</li> <li>(iv) conduct assessments of demand and market conditions for products within selected value chains</li> <li>(v) identify constraints and barriers (financial, technology, infrastructure, human resources/skills, marketing, regulatory, policy, institutional)</li> <li>(vi) recommend public investments required to support the selected value chains</li> <li>(vii) identify appropriate models for public-private partnerships in agribusiness</li> <li>(viii) evaluate the public organization and capacity of relevant government institutions and their staff and propose institutional, policy and capacity building reforms</li> <li>(ix) consolidate the outcome of the above tasks and prepare a development strategy for the HP horticulture sector and action and investment plans for increased commercialization of the selected commodities</li> </ul> <p>POP development and training</p> <ul style="list-style-type: none"> <li>(i) Baseline assessment of the selected horticulture fruits, varieties and the clusters under the PRF</li> <li>(ii) Organize a workshop for consultation and develop the draft POPs</li> <li>(iii) Create necessary audio-visual materials for easy communication of POPs for dissemination with the farmers</li> <li>(iv) Assess the training needs of targeted farmers</li> <li>(v) Select POPs trainers in consultation with the DOH and organize training of trainers in POPs-based technology and its application</li> <li>(vi) Assist DOH in organizing training of farmers through selected trained trainers</li> <li>(vii) Create a network of crop/fruit experts for supporting the farmers in the use of POPs under the program.</li> <li>(viii) Support DOH in developing a website or modules for knowledge website to host the POPs and related knowledge material for public access</li> </ul> <p>Capacity building</p> <ul style="list-style-type: none"> <li>(i) Gap analysis of the current extension schemes of DOH and DIPH</li> <li>(ii) Assessment of current planning and design practices and procedures of DOH and DIPH</li> <li>(iii) Development and implementation framework of a capacity building, technical assistance and training of trainers</li> <li>(iv) Design capacity building programs at state, district and lower levels</li> </ul>

PRF Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> <li>(v) Develop relevant training materials for the agreed capacity building program</li> <li>(vi) Provide a training of trainers for DOH horticulture specialists and DIPH irrigation specialists;</li> <li>(vii) Supervising a district level training program implemented by the Trained Trainers</li> </ul>
	<p>WUA facilitation</p> <ul style="list-style-type: none"> <li>(i) Support DIPH to establish a unit for WUA and prepare terms of reference at Sub-district, Block and Facilitator levels</li> <li>(ii) Prepare a unified WUA manual in collaboration with the World Bank and JICA under the leadership of DIPH</li> <li>(iii) Prepare a WUA Development Plan that schedules the institutional development and training of the WUAs</li> <li>(iv) Establish systems and procedures to monitor the progress of WUA establishment and training</li> <li>(v) Advise and prepare recommendations on participation of the WUAs in aspects of planning and design of irrigation construction activities</li> <li>(vi) Develop a methodology whereby legal WUA construction contracts could be formulated and implemented by the WUAs</li> <li>(vii) Develop methodologies with the DIPH Design Unit tailored to the needs of each scheme including field testing of equitable means of water management, irrigation scheduling, volumetrically measured cost recovery and other aspects of system management and infrastructure handover</li> <li>(viii) Ensure that information on the WUA development and management program, including digitally recorded system water use, are incorporated into the Project MIS and GIS systems</li> </ul>
	<p>CHPMA facilitation</p> <ul style="list-style-type: none"> <li>(i) Support the DoH to establish a CHPMA unit within the DOH</li> <li>(ii) Working with the DoH prepare a CHPMA manual</li> <li>(iii) Prepare a CHPMA Development Plan that schedules the institutional development and training of the CHPMAs</li> <li>(iv) Establish systems and procedures to monitor the progress of CHPMA establishment and training</li> <li>(v) Create a series of fora at district and state level for key stakeholder engagement</li> <li>(vi) Advise and prepare recommendations on a value chain development fund</li> <li>(vii) Ensure that information on the CHPMA development and management program are incorporated into the Project MIS and GIS systems.</li> </ul>
	<p>Ensuing project preparation</p> <ul style="list-style-type: none"> <li>(i) Prepare feasibility studies as the basis of the ensuing project design</li> <li>(ii) Prepare the ensuing project design report and its supporting documents<sup>c</sup></li> <li>(iii) Assist the IAs to collect other documents and information as required to obtain project approval from government authorities and ADB</li> </ul>
	<p>Auditing</p> <ul style="list-style-type: none"> <li>(i) Assessment of the adequacy of the project financial management systems, including internal controls</li> <li>(ii) Support DOH and DIPH to enhance the system to record and manage supporting documents, contracts, records, and accounts</li> <li>(iii) Support DOH and DIPH to prepare an annual audit plan</li> <li>(iv) Follow-up on the status of past audit observations and recommendations to ensure timely implementation</li> </ul>

PRF Project Implementation Organizations	Management Roles and Responsibilities
	<p>Monitor and review overall implementation of the project in consultation with the EA and IAs including the following:</p> <ul style="list-style-type: none"> <li>(i) Project implementation schedule</li> <li>(ii) Progress with procurement and disbursement</li> <li>(iii) Monitor effectiveness of safeguard procedures and ensure full social and environmental safeguards compliance</li> <li>(iv) Timeliness of budgetary allocation and counterpart funding</li> <li>(v) Project expenditure</li> <li>(vi) Review compliance with particular loan covenants</li> <li>(vii) Monitor conformity with ADB anti-corruption policies</li> </ul>

ADB = Asian Development Bank, CHPMAs = community horticulture production and marketing associations, DIPH = Department of Irrigation and Public Health, DOH = Department of Horticulture, PIU = project implementing unit, PMU = project management unit, POP = packages of practice, PRF = project readiness financing, WUA = water user association

<sup>a</sup> The Governing Council is chaired by Minister and includes the following members: Chief Secretary, GOHP as Deputy Chair; Additional Chief Secretary for Finance; Principal Secretary for Agriculture; Secretary for Horticulture; Vice Chancellor for Dr. YS Parmar University Solan of Horticulture and Forestry; Director of Horticulture; Director of Agriculture; Engineering-in-Chief (projects); and Project Director.

<sup>b</sup> The Executing Committee is chaired by Secretary for Horticulture, and Irrigation and Public Health. Members: Director of Horticulture; Engineer-in-Chief (Projects) for DIPH; Managing Director for HPMC; Managing Director for HPSAMB; Director of Research for YSP UHF Solan; and Advisor for Planning Department; Director of Agriculture; Project Director of the PMU acting as the Secretary to the EC; DOH and DIPH Deputy Project Directors; nodal officer for PMU; and Finance Officer.

<sup>c</sup> The list of supporting documents are provided in the Terms of Reference of consulting services

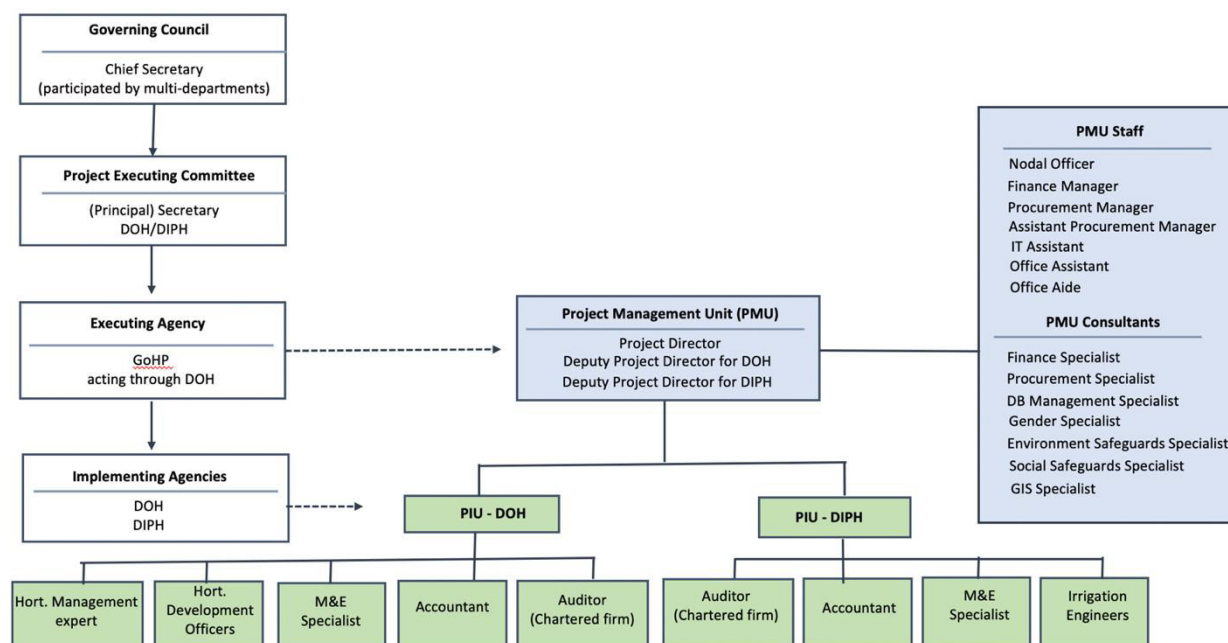
Source: ADB

## B. Key Persons Involved in Implementation

Executing Agency	
Department of Horticulture, Government of Himachal Pradesh	Mr. Devinder Thakur Project Director, HPSHIVA Telephone 0177 262 8479 E-mail address <a href="mailto:pmuhpshiva@gmail.com">pmuhpshiva@gmail.com</a>
Asian Development Bank	
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1. **Project organization structure and key staff:** the reporting lines essential internal structures of key organizations involved in implementation is shown in Figure 1.

**Figure 2: Project Organization Structure**



### III. COSTS AND FINANCING

2. The project is estimated to cost \$12.5 million.<sup>1</sup> The government has requested a regular loan of \$ 10.0 million from ADB's ordinary capital resources to help finance project preparation and design activities. The State of Himachal Pradesh will finance the equivalent of \$2.5 million for taxes and duties, PMU operating costs and interest during implementation. PMU operating costs include PMU staff salaries and per diem, vehicle and equipment operating costs. Taxes and duties are estimated to be \$1.55 million. ADB will finance taxes and duties of \$0.66 million and the government will finance taxes and duties of \$0.87 million in the form of reimbursement. ADB will finance the expenditures in relation to civil works and equipment, consulting services, capacity building, and consultant operating costs. Project costs may be revised during midterm review or special administration review missions.

3. PRF piloting activities comprise Activity 1.1 rehabilitation or establishment of 16 irrigation schemes and Activity 2.1. establishment of 17 irrigated subtropical horticulture production areas. The cost of piloting activities will not exceed \$5 million of ADB's loan for the PRF project. Once the PRF is completed, the management of PRF assets will be continuously done under the ensuing project.<sup>2</sup> As part of the clear transfer of PRF asset management responsibilities, the EA will ensure that DOH and DIPH record the asset in its books at its fair value before the PRF completion.

<sup>1</sup> The cost estimates were prepared by ADB and the government using data from primary and secondary sources. Figures are based on unit cost and rates prevailing in Himachal Pradesh in November 2019.

<sup>2</sup> If no ensuing project is to be followed by the PRF, the PRF assets will be handed over to DOH, DIPH or beneficiaries. As part of the handover, the EA will develop and adopt procedures for proper maintenance of the assets and secure funds for operating and maintaining the assets.

4. Climate financing of the project is estimated at \$1.25 million for climate adaptation. This includes the costs of the preparation of packages of practices for climate-resilient practices, drip irrigation and farm-level water storage, recruitment of climate specialists, study tours and scientific studies supported by the PRF.<sup>3</sup>

5. The loan will have a 15-year term, including a grace period of 3 years; an annual interest rate of determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility and other terms and conditions set forth in the draft loan agreement. The method of repayment will be a straight-line amortization.

6. The project readiness loan will be refinanced under the ensuing loan. The refinancing date is the expected date of effectiveness of the ensuing loan agreement and will generally be adjusted to coincide with the actual effectiveness date of the ensuing loan agreement. The refinancing date will be before the first principal repayment date of the project readiness loan.

#### A. Key Assumptions

7. The following key assumptions underpin the cost estimates and financing plan:
- (i) Exchange rate: RS74.3541 = \$1.00 (as of 27 August 2020).
  - (ii) Physical contingencies computed at 10% for civil works, equipment, training, vehicles and administrative costs and 5% on consultancy. Price contingencies based on expected cumulative inflation over the implementation period are as follows:

**Table 3: Escalation Rates for Price Contingency Calculation**

Item	2020	2021	2022	Average
Foreign rate of price inflation	-0.5%	1.6%	1.7%	0.9%
Domestic rate of price inflation	3.0%	4.0%	4.0%	3.7%

Source: Asian Development Bank estimates.

#### B. Allocation and Withdrawal of Loan Proceeds

**Table 4: Allocation and Withdrawal of Loan Proceeds**

Number	Item	Total Amount Allocated for ADB Financing (\$)	% of Total Financing	Basis for Withdrawal from the Loan Account
1	Equipment, materials and capacity building	1,500,000	84.7%	Percent of total expenditure claimed
2	Civil works	3,500,000	89.3%	Percent of total expenditure claimed
3	Consultants	4,170,000	100%	Percent of total expenditure claimed
4	Vehicles	160,000	82%	Percent of total expenditure claimed
5	Unallocated	670,000		
	Total	10,000,000		

ADB=Asian Development Bank  
Source: ADB estimates.

<sup>3</sup> Climate Change Assessment of the ensuing loan will also cover the PRF given that all the PRF target areas are part of the ensuing project and PRF pilot activities will be expanded under the ensuing project.

### C. Detailed Cost Estimates by Expenditure Category and Financier

**Table 5: Project base cost estimates by expenditure category and financier**

	Asian Development Bank		The Government		Total	
	Amount (\$'000)	% of Cost Category	Amount (\$'000)	% of Cost Category	Amount (\$'000)	Taxes and Duties
<b>A. Ensuing loan preparation</b>						
1. Consultants	4,179.1	100.0%	0.0	0.0%	4,179.1	637.5
2. Capacity building	599.6	84.7%	107.9	15.3%	707.5	107.9
<b>Subtotal (A)</b>	<b>4,778.7</b>	<b>97.8%</b>	<b>107.9</b>	<b>2.2%</b>	<b>4,886.7</b>	<b>745.4</b>
<b>B. Pilot-testing</b>						
1. Civil works	3,459.4	89.3%	415.1	10.7%	3,874.5	415.1
2. Vehicles	166.2	82.0%	36.6	18.0%	202.7	36.6
3. Equipment and Materials	906.6	84.7%	163.2	15.3%	1,069.8	163.2
<b>Subtotal (B)</b>	<b>4,532.2</b>	<b>88.1%</b>	<b>614.9</b>	<b>11.9%</b>	<b>5,147.1</b>	<b>722.8</b>
<b>C. Recurrent cost</b>						
1. PMU staff salaries and expenses	0.0	0.0%	1,195.6	100.0%	1,195.6	6.8
2. Operation and maintenance	0.0	0.0%	370.3	100.0%	370.3	56.5
<b>Subtotal (C)</b>	<b>0.0</b>	<b>0.0%</b>	<b>1,565.9</b>	<b>100.0%</b>	<b>1,565.9</b>	<b>63.3</b>
<b>Total Base Cost (A+B+C)</b>	<b>9,310.9</b>	<b>80.3%</b>	<b>2,288.7</b>	<b>19.7%</b>	<b>11,599.7</b>	<b>1,423.6</b>
<b>D. Contingencies</b>						
1. Physical	602.9	85.3%	103.7	14.7%	703.9	93.3
2. Price	88.8	85.3%	15.4	14.7%	104.2	13.8
<b>Subtotal (D)</b>	<b>689.1</b>	<b>85.3%</b>	<b>119.1</b>	<b>14.7%</b>	<b>808.1</b>	<b>107.1</b>
<b>E. Financial Charges During Implementation (E)</b>	<b>0.0</b>	<b>0.0%</b>	<b>100.0</b>	<b>100.0%</b>	<b>100.0</b>	<b>0.0</b>
<b>Total Project Cost (A+B+C+D+E)</b>	<b>10,000.0</b>	<b>80.0%</b>	<b>2,507.8</b>	<b>20.0%</b>	<b>12,507.8</b>	<b>1,530.7</b>

PMU = Project Management Unit

Note: Numbers may not sum precisely because of rounding

Source: Asian Development Bank

## D. Detailed Cost Estimates by Year

**Table 6: Total project expenditure by year (Base cost)**  
(\$ million)

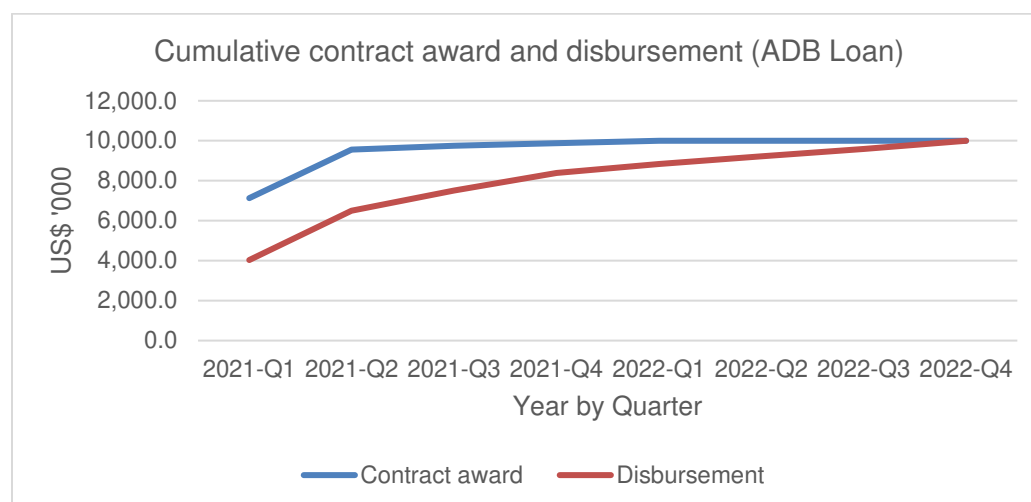
Item	Total Cost	2021	2022
<b>A. Consulting Services</b>			
1. Consultants	4,179.1	1,972.8	2,206.3
2. Capacity building	707.5	503.0	245.5
<b>Subtotal (A)</b>	<b>4,886.7</b>	<b>2,475.9</b>	<b>2,410.8</b>
<b>B. Pilot-testing</b>			
1. Civil works	3,874.5	3,358.5	516.0
2. Vehicles	202.7	202.7	0.0
3. Equipment and Materials	1,069.8	1,035.5	34.3
<b>Subtotal (B)</b>	<b>5,147.1</b>	<b>4,596.8</b>	<b>550.3</b>
<b>C. Recurrent cost</b>			
1. PMU staff salaries and expenses	1,195.6	579.1	616.4
2. Operation and maintenance	370.3	204.5	165.8
<b>Subtotal (C)</b>	<b>1,565.9</b>	<b>783.6</b>	<b>782.3</b>
<b>Total Base Cost (A+B+C)</b>	<b>11,599.7</b>	<b>7,856.3</b>	<b>3,743.4</b>
<b>D. Contingencies</b>			
1. Physical	703.9	578.4	125.6
2. Price	104.2	48.4	55.8
<b>Subtotal (D)</b>	<b>808.1</b>	<b>626.8</b>	<b>181.3</b>
<b>E. Interest Charges During Implementation</b>	100.0	0.0	100.0
<b>Total Project Cost (A+B+C+D+E)</b>	<b>12,507.8</b>	<b>8,483.1</b>	<b>4,024.7</b>

PMU = Project Management Unit.

Note: Numbers may not sum precisely because of rounding

Source: Asian Development Bank

## E. Contract and Disbursement S-Curve

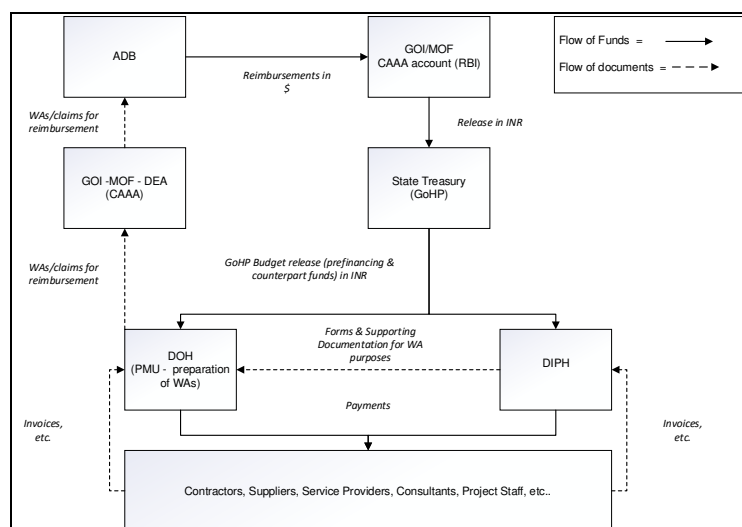


**Table 7: Contract Award and Disbursement Projections**

Contract Awards (in USD'000)						Disbursements (in USD '000)				
Year	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2021	7,127.0	2,425.8	193.5	126.8	9,873.2	4,030.6	2,471.2	1,009.0	877.6	8,388.4
2022	126.8	0.0	0.0	0.0	126.8	455.0	374.4	374.4	407.8	1,611.6
<b>Total Contract Awards</b>					<b>10,000.0</b>	<b>Total Disbursements</b>				<b>10,000.0</b>

8. **Fund flow diagram:** The Government of Himachal Pradesh will provide DOH and DIPH with sufficient budget to finance the project expenditures. Subsequently, DOH and DIPH will claim the share of expenditures to be covered by ADB on a reimbursement basis by submitting withdrawal applications through the Borrower to ADB. ADB will pay the Borrower out of the loan, and the Borrower will channel the funds to the Government of Himachal Pradesh.

**Figure 3 Fund Flow Diagram**





## IV. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

9. The financial management assessment (FMA) was conducted in November 2019 in accordance with ADB's *Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: A Methodology Note*. The FMA considered the capacity of the two implementing agencies, DOH and DIPH, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements.

10. The FMA found that DOH and DIPH have adequate financial management capability to (i) record the required financial transactions, (ii) provide reliable annual financial statements and audit reports in a timely manner, administer the SOE procedure in accordance with ADB's disbursement handbook and (iv) safeguard the financial assets. However, the FMA also identified the following financial management (FM) risks: (i) implementation arrangement that engages two IAs; (ii) lack of experience with ADB's FM requirements and disbursement procedures; (iii) inefficient internal audit functions of IAs; and (iv) outstanding audit observations observed at the IA level. Overall, the FM risk is assessed as *substantial*. The identified risks will be mitigated by the following: (i) assigning designated account staff to the project in both IAs, (ii) engaging an FM Expert to support the PMU; (iii) providing continuous training in ADB's FM requirements; iv) including comprehensive financial information in the quarterly project progress reports; v) establishing an project audit review committee; and vi) engaging an external firm to undertake internal audits for the PRF. Moreover, the project financial statements will be audited annually by an auditor acceptable to ADB, following auditing standards acceptable to ADB.

11. DOH, DIPH and ADB have agreed to implement an action plan with key measures to address the identified risks. The FM action plan presented in Table 8 below summarizes the key risks, activities for mitigation, staff and/or personnel responsible, and agreed completion dates.

**Table 8: Financial Management Action Plan**

Risk Area	Agreed action	Responsibility	Timeframe
Staffing	Assign a dedicated accountant to the project to ensure each IA maintains separate books of accounts, financial reports generated in a timely manner and in agreed format and ADBs audit requirements are complied with.	DOH and DIPH	Within one month after loan effectiveness.
Staffing	Hire an external FM expert to support the PMU/DOH and DIPH.	PMU/DOH	Within one month after loan effectiveness
Staffing	Develop and implement an FM training plan with regards to project financial reporting, ADB disbursement procedures and systems (CPD & LFIS) and FM and audit requirements	PMU/DOH, DIPH and ADB	Quarterly throughout the project implementation;
Planning	Prepare a consolidated the annual work program and budget for the entire project	PMU/DOH, and DIPH	Annually throughout the project implementation

<b>Risk Area</b>	<b>Agreed action</b>	<b>Responsibility</b>	<b>Timeframe</b>
Accounting	Develop an FM manual for the value chain financing activities to be implemented under the ensuing loan. The manual should summarize the applicable FM arrangements and cover the flow of funds, accounting, financial reporting and audit arrangements under the related activities.	PMU/DOH	By end of first year of implementation of the PRF
Accounting	Monitor the financial performance including disbursement commitments, budget against actual expenditures, and physical financial performance	PMU/DOH	Continuous
Accounting	Maintain a fixed asset register for all asset created or purchased under the project.	PMU/DOH and DIPH	Continuous
Financial reporting	Include comprehensive financial information in the consolidated quarterly progress reports to be submitted to ADB.	PMU/DOH and DIPH	Within 45 days after the end of the reporting period.
Internal audit	Engage an external Chartered Accountant firm to undertake quarterly internal audits of the project (project internal auditor) in accordance with agreed ToRs.	DOH and DIPH	Within six months after loan effectiveness.
External audit	Ensure the project is included in the audit plan of the CAG;  Cause the DOH and DIPH project financial statements to be audited separately by CAG in accordance with the audit ToRs agreed between ADB, DEA and CAG; Submit the APFS for DOH and DIPH to ADB	PMU/DOH and DIPH  PMU/DOH and DIPH PMU/DOH	Within 2 months after loan effectiveness;  Annually throughout the project implementation; Within six months after the end of the fiscal year
CAG	Conduct annual review of past audit observations to ensure corrective actions are being implemented in a timely manner;  Develop a plan with including time bound milestones and feasible actions to resolve past audit observations.	DOH and DIPH	Annually;  By the end of the second year of implementation of the PRF
External and internal audit	Form a project audit review committee to review project related external and internal audit observations and monitor timely implementation of corrective actions.	PMU/DOH and DIPH	Within six months after loan effectiveness
Information systems	Deploy an accounting software to be used to record project transactions and to generate financial reports.	PMU/DOH and DIPH	Within one month after loan effectiveness
Information systems	Use of ADB's LFIS and CPD to reconcile project accounts and ADB disbursement records.	PMU/DOH and DIPH	Monthly from loan first disbursement throughout project implementation.

ADB = Asian Development Bank, CPD = Client Portal for disbursement, DOH = Department of Horticulture, DIPH = Department of Irrigation and Public Health, GoHP=Government of Himachal Pradesh, HPSHIVA = Himachal Pradesh Subtropical Horticulture, Irrigation and Value Addition Project, IA = Implementing Agency, LFIS = Loan Financial Information Service, PIU = project implementation unit, PMU = project management unit.

12. To ensure an effective and timely implementation of the FM action plan, DOH and DIPH are required to review the progress made against each agreed action on a quarterly basis. In addition, ADB review missions will review and verify the status of the FM risks and FM action plan on an annual basis and suggest remedial measures, as appropriate.

## **B. Disbursement**

13. The PRF loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time), and detailed arrangements agreed upon between the government and ADB.<sup>4</sup> It is expected that only the reimbursement procedure will be used to disburse the ADB funds. Online training for project staff on disbursement policies and procedures is available.<sup>5</sup> Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

14. The DOH and DIPH will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, and (iii) collecting and retaining all supporting documents for their respective outputs. DOH, through its PMU, will be responsible for preparing and submitting all withdrawal applications to ADB, through CAAA, and collecting the necessary documents from DIPH as specified in ADB's *Loan Disbursement Handbook*. To facilitate reconciliation of ADB disbursement records and DOH's and DIPH's books of accounts, DOH will ensure, through its PMU, that expenditures incurred by DOH and DIPH are claimed in separate withdrawal applications (WAs).

15. **Statement of expenditure (SOE) procedure.**<sup>6</sup> The SOE procedure may be used for reimbursement of eligible expenditures. The ceiling of the SOE procedure is the equivalent of \$100,000 per individual payment. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.

16. Reimbursement of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

17. Before the submission of the first WA, the Borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per WA is stipulated in the *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid by DOH, DIPH or the Government of Himachal Pradesh (GoHP) and subsequently claimed to ADB through reimbursement, unless otherwise accepted by ADB. The borrower should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's Client Portal for Disbursements (CPD) system is mandatory for submission of withdrawal applications to ADB.<sup>7</sup>

<sup>4</sup> The handbook is available electronically from the ADB website (<http://www.adb.org/documents/loan-disbursement-handbook>).

<sup>5</sup> Disbursement eLearning. [http://wpqr4.adb.org/disbursement\\_elearning](http://wpqr4.adb.org/disbursement_elearning).

<sup>6</sup> The SOE procedure is a simplified procedure requiring no submission of supporting documentation of expenditures. SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

<sup>7</sup> The CPD facilitates online submission of WA to ADB, resulting in faster disbursement. The forms to be completed by the Borrower are available online at <https://www.adb.org/documents/client-portal-disbursements-guide>.

18. This PRF project will be re-financed under an ensuing loan. Upon refinancing, no further disbursements will be made from the PRF account. The PRF loan amount and accrued financing charges are paid out under the PRF cost category of the ensuing loan that will refinance the PRF loan. Provided the following costs are eligible expenditures, the ensuing loan will finance (i) costs incurred under PRF that have not yet been paid from the PRF account by the refinancing date, (ii) costs for activities initiated under PRF and continuing beyond the refinancing date, and (iii) costs incurred during PRF implementation but ineligible under PRF.

19. **Disbursement Arrangements for Counterpart Fund.** The project budget will be prepared following a bottom-up approach in a consultative process that will involve all related units/divisions from DOH and DIPH. Budgets will be prepared for all activities financed by ADB funds as well as GoHP. Final approved budget estimates for government funds for the project will be reflected in the annual budget estimates under DOH and DIPH.

20. The government counterpart funds will be sufficiently allocated in the budget annually. DOH and DIPH will be responsible for preparing disbursement projections and requesting budgetary allocations for their respective outputs under the project, including counterpart funds to the Government of Himachal Pradesh. All disbursements under government financing will be carried out in accordance with the regulations of GoI and GoHP and accounting principles acceptable to ADB.

21. **Financial management responsibilities.** The DOH through its PMU will have the overall responsibility for ensuring that financial management arrangement of the project comply with ADB's requirements as outlined in the legal agreements and the PAM. In particular, the PMU/DOH will have the following responsibilities:

- Ensure that adequate and qualified financial staff are assigned to the PMU and PIUs;
- Based on input from DIPH, prepare a consolidated annual work program and budget for the entire project;
- Incur expenditures as part of the project and maintain separate book of accounts under the project;
- Ensure that the adequate internal controls are in place for the project as whole and that the Financial Management action plan outlined in the PAM is implemented in a timely manner;
- Prepare and submit withdrawal applications to ADB through CAAA, in accordance with ADBs' disbursement procedures;
- Support DIPH in undertaking quarterly reconciliations of their books of accounts and ADB disbursement records;
- Monitor the financial performance of the project as a whole, including disbursement, commitments, budget vs actual expenditures and physical vs financial performance;
- Based on input from DIPH, prepare consolidated quarterly progress reports to be submitted to ADB 45 days after the end of each quarter;
- Prepare project financial statements in the agreed format and cause them to be audited by an independent auditor (CAG or an audit firm empaneled by CAG);
- Ensure the audited project financial statements of DOH and DIPH are submitted to ADB within six months after the end of the fiscal year;
- Through the project audit review committee, ensure audit observations are addressed within a reasonable time;
- File all relevant project records in a secure place; and

- Coordinate with DIPH to ensure timely closure of the ADB loan account.

22. DIPH will undertake at least the following:

- Ensure that adequate and qualified financial staff are assigned to the project;
- Prepare input for the annual work program and budget and submit the to the PMU/DOH for consolidation.
- Incur expenditures as part of the project and maintain separate book of accounts under the project;
- Provide quarterly financial reports to the PMU/DOH in the agreed format within 30 days after the end of each quarter;
- Collect and provide all financial documentation to the PMU/DOH as outlined in the ADB disbursement handbook;
- Prepare project financial statements in the agreed format and cause them to be audited by an independent auditor (CAG or an audit firm empaneled by CAG) engaged and submit the audited project financial statements and the management to the PMU/DOH for further submission to ADB.
- Address audit recommendations in a timely manner; and
- File all relevant project records in a secure place;

23. **Financial Management Capacity.** In order to ensure sufficient knowledge in ADB's FM requirements, including procedures and related systems, the DOH and DIPH will ensure that each financial staff assigned to the project undertake the following actions within the first three months working with the project:

- Become aware of the ADB and national anticorruption policy and whistle blowing mechanisms.
- Master loan/grant agreement including the loan covenants and the relevant sections of the Project Administration Manual, as well as the ADB loan disbursement handbook
- Obtain user/reader rights (as required) to ADBs systems including: the Client Portal for Disbursement and the Loan Financial Information Service (LFIS); and
- Familiarize themselves with ADB's reporting requirements including the agreed format for project financial statements and Audit ToRs Terms of Reference for audit of ADB assisted projects, agreed with the Comptroller and Auditor General of India, the DEA and ADB

## C. Accounting

24. DOH and DIPH will maintain separate books of accounts and records by funding source for all expenditures incurred as part of the project on cash basis of accounting following accounting principles and practices prescribed by the Government of India's accounting laws and regulations. DOH and DIPH will prepare separate project financial statements and in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices. Template financial statements provided in the standard terms of reference for the audit of ADB-assisted projects, agreed with the Comptroller and Auditor General of India, Department of Economic Affairs, and ADB, are to be referred to as a guide. Accordingly, the project financial statements shall include the following:

- Statement of cash receipts (by financing source) and payments (by expenditure category) for the current reporting period, past reporting period, and cumulative to date;
- Statement of expenditure by category and financier for the year/period end;
- Statement of advance/imprest sub account;

- Statement of disbursement, disclosing all funds claimed from ADB by disbursement method, total expenditure claimed for the current reporting period, past reporting period, and cumulative to date. The notes of the financial statements should include a detailed list of all withdrawal applications submitted to, and the amounts paid by ADB as follows: (a) WA number, (b) the amount claimed and currency, (c) time period in which expenditures were incurred, (d) date submitted, (e) disbursement method and f) the amount disbursed by ADB;
- Disbursement claimed under SOE procedure for the reporting period;
- Statement of appropriation vs. actual expenditures. Any significant variances must be duly explained;
- Expenditure by output/components for the current reporting period, past reporting period, and cumulative to date; and
- Notes to the Financial Statements disclosing the used accounting standards and policies and other relevant information and explanations. The notes should also disclose any government contribution received as part of the project.

25. The expenditure categories and outputs used in the project financial statement will be aligned with the expenditure categories of the PAM.

26. In order to provide timely information on the project's financial progress and the status of financial management to DOH, through its PMU, will prepare consolidated financial information to be included in the Quarterly Progress Reports (QPR) to be submitted to ADB within 45 days after the end of the quarter.

27. The consolidated financial information in the QPRs will include at least the following financial information<sup>8</sup>:

- Cumulative contract awards financed by the ADB loan, and counterpart funds (commitment of funds to date), and comparison with time-bound projections (targets – for ADB financing compare the actual contract awards with the contract award curve included in the PAM). Any significant variances between planned and actual contract awards are to be explained;
- Cumulative disbursements from the ADB loan, and counterpart funds (expenditure to date), and comparison with time-bound projections (targets – for the ADB financing compare the actual disbursement with the disbursement projections as per the S curve included in the PAM). Any significant variances between planned and actual disbursements are to be explained;
- Re-estimated costs to completion, need for reallocation within ADB loan categories, and whether an overall project cost overrun is likely;
- Reconciliation of project records and ADB disbursement records (LFIS) for the financial year to date and cumulative from project inception to end of the reporting period. Any discrepancies and outline follow-up actions required are to be explained;
- Variance analysis including budget vs actual expenditures and physical vs financial progress, with significant deviations explained;
- Summary of the status of financial covenants (if any) as outlined in the loan and project agreement;
- Summary of the status of Financial management in the project including: a) any problems in the existing FM arrangements and /or flow of funds and b) any significant changes

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<sup>8</sup> QPR report template is attached to the PAM.

occurred during the reporting period (e.g. FM staff turnover, implementation of new financial systems, emerging FM related risks etc.);

- Summary of the status of: a) the FM action plan outlined in the PAM, b) recommendations and actions raised by ADB as part of the APFS review (if any) and c) FM related recommendations agreed during ADB review missions (if any); and
- Summary of the status of Status of past audit observations (resolved/ pending)

28. Detailed financial reports may be included as an annex to the progress report as agreed with ADB. Sample quarterly financial reports are included as an appendix to the PAM.

29. **Reconciliations and Variance analysis.** To ensure the correctness and completeness of the project's disbursement records, the DOH and DIPH shall conduct quarterly reconciliation of the project accounts, and ADB's disbursement data available in the LFMIS.

30. Any discrepancies and/or reconciliation items will be promptly followed up on to ensure these are resolved in a prompt manner. Furthermore, any differences between amounts claimed and the amounts disbursed will be disclosed and explained in the WA register, in the quarterly progress reports and in the notes of the project financial statements.

31. Moreover, The DOH and the DIPH will conduct variance analysis of at least on a quarterly basis, examining the differences between budgeted vs. actual expenditures as well as financial vs. physical progress. The variance analysis will pay particular attention to:

- significant deviations from the budgeted engineer's estimate;
- Significant deviations between financial and physical progress;
- Significant delays on (planned vs. reported) physical and/or financial progress; and
- Inconsistent and/or delayed progress reporting.

## **D. Auditing and Public Disclosure**

32. **Project Audit Review Committee:** In order to strengthen the internal control framework under the project, a Project Audit Review Committee will be established. The Committee will be headed by the Project Director and will include staff from both DOH and DIPH. The Project Audit Review Committee will meet on a quarterly basis to monitor past internal and external audit observations and recommendations to ensure these are being adequately addressed within a reasonable time. The status of past audit observations will be included in the quarterly progress reports.

33. **External Auditing and Public Disclosure.** DOH and DIPH will cause their respective project financial statements to be audited separately on an annual basis and in accordance with the government's audit regulations by the Controller and Auditor General (CAG) or a firm empaneled by the CAG, which is acceptable to ADB. The standard terms of reference for the audit of ADB-assisted projects, agreed with the Comptroller and Auditor General of India, Department of Economic Affairs, and ADB, are to be referred to as a guide. The standard terms of reference are provided in Attachment C.

34. The respective audit reports will include a separate audit opinions, which will cover (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; and (ii) whether the loan proceeds were used only for the purposes of the project. The respective audit reports must also be accompanied by a management letter outlining any identified internal control

issues. The management letter should also include management's response to the audit observations. From the second year onward, the management letter must also include a follow-up on previous years audit observations. In case the auditor does not issue a management letter, the auditor must issue a written confirmation that no internal control issues were identified as part of the audit.

35. The audited project financial statements, together with the auditor's opinion, and the management letter will be presented in the English language to ADB within 6 months from the end of the fiscal year. In this regard, DIPH will submit its respective APFS to the PMU/DOH in a timely manner to allow the PMU/DOH to compile the Audited project Financial Statements, audit opinions and management letters for both entities and submit the complete package to ADB in a timely manner.<sup>9</sup> As part of the compilation, the PMU will make sure the financial information presented in each of audited project financial statements (APFS) reconcile with ADB's disbursement records. In this regard, a separate unaudited reconciliation statement, in a format acceptable to ABD, will be attached to the compiled APFS submitted to ADB.

36. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor. Accordingly, the submission of the following audit reports, listed in the table below will be monitored by ADB.

Entity	Audit report	Date
DoH	Audited project financial Statements (APFS) including management letter	Within six months after the end of the fiscal year: 30th September each year.
DIPH	Audited project financial Statements (APFS) including management letter	Within six months after the end of the fiscal year: 30th September each year.

37. The government, DOH, and DIPH have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>10</sup> ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed.

38. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Access to information Policy 2018.<sup>11</sup> After the review, ADB

<sup>9</sup> No later than 6 months after the end of the fiscal year.

<sup>10</sup> Following is ADB's policy on delayed submission of audited project financial statements:

- (i) When audited project financial statements are *not received by the due date*, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements *have not been received within 6 months after the due date*, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements *have not been received within 12 months after the due date*, ADB may suspend the loan.

<sup>11</sup> Available at <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>



will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.<sup>12</sup>

## V. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

39. All advance contracting and retroactive financing will follow the ADB Procurement Policy (2017, as amended from time to time) and its associated staff instructions. The issuance of consulting service recruitment notices or invitations to bid under advance contracting and retroactive financing will be subject to ADB approval.<sup>13</sup> ADB has advised the borrower, the Department of Horticulture, and the Department of Irrigation and Public Health that approval of advance contracting and retroactive financing does not commit ADB to finance the PRF project.

40. **Advance contracting.** The project will initiate advance contracting listed in below Table 9 for the procurement of farm subtropical horticulture production inputs and for the construction of irrigation infrastructure. The DOH has quantified its planting material requirements and surveyed potential suppliers and procurement of planting material will be done through Requests for Quotations from quality-approved nurseries. The DIPH has prepared detailed designs, drawings and bills of quantity for 16 planned irrigation investments which will be advertised for bidding through the Government of Himachal Pradesh's e-Procurement system [www.hptenders.gov.in](http://www.hptenders.gov.in).

<sup>12</sup> Access to Information Policy: <https://www.adb.org/documents/access-information-policy>

<sup>13</sup> The date of PRF memo approval is 12 May 2020 after which

**Table 9: Advance Contracting**

Activity	Responsible	Status	Amount (\$)	Expected award date
<b>CIVIL WORKS</b>				
CW01 Irrigation scheme in Mandi	DIPH	D	800,000	10 Dec 2020
CW02 Irrigation scheme in Hamirpur	DIPH	D	230,000	10 Dec 2020
CW03 Irrigation scheme in Bilaspur	DIPH	D	500,000	10 Dec 2020
CW04 Irrigation scheme in Kangra	DIPH	E	670,000	15 Dec 2020
CW06 Installation of water storage tanks and drip irrigation system	DOH	E	690,000	15 Nov 2020
CW07 Field preparation	DOH	B	650,000	15 Oct 2020
CW08 Animal proof fencing	DOH	B	700,000	15 Oct 2020
<b>GOODS</b>				
G01 Horticulture planting materials	DOH	A	350,000	10 Sep 2020
G02 Computing software	Both	F	63,000	30 Oct 2020
G03 Horticulture input	DOH	F	280,000	10 Nov 2020
G04 Farm equipment	DOH	F	85,000	10 Nov 2020
<b>CONSULTING SERVICES</b>				
CS01 Construction supervision (LCS)	DIPH	CSRN	150,000	15 Nov 2020
CS02 PMU consultants	Both	CSRN	1,050,000	15 Nov 2020
CS03 Horticulture sector strategy and investment plan 2023-2030	DOH	CSRN	380,000	20 Dec 2020
CS05 DOH capacity building consultant	DOH	CSRN	73,000	10 Oct 2020
CS06 DIPH capacity building firm	DIPH	CSRN	350,000	20 Dec 2020
CS07 WUA facilitation	DIPH	CSRN	800,000	15 Dec 2020
CS08 CHPMA group facilitation and training	DOH	CSRN	840,000	15 Dec 2020
CS09 Internal auditors (LCS)	Both	CSRN	20,000	10 Oct 2020
Total			8,680,000	

<sup>a</sup> Advance action status is categorized as following: Completed (signed contract submitted to ADB), A (contract signing), B (at the financial bid evaluation stage – preparation and submission to ADB, and ADB review and approval), C (at the technical bid evaluation stage – preparation and submission to ADB, and ADB review and approval), D (bidding), E (ADB approval of bid docs), F (submission of bid docs to ADB).

41. **Retroactive financing.** Eligible expenditures incurred before loan effectiveness, and not more than 12 months before the signing of the PRF loan agreement, of up to \$2.0 million (20% of the PRF financing) can be reimbursed from the PRF loan using retroactive financing. Procurement Contract Summary Sheet (PCSS) data for expenditures incurred prior to the effective date of the loan agreement will be entered into the LFIS only after loan effectiveness

42. As advance actions, DOH and DIPH will prioritize procurement and implementation of the packages in Table 10.

**Table 10: Retroactive Financing**

<b>Activity</b>	<b>Responsible</b>	<b>Amount (\$)</b>	<b>Expected expenditures by end Dec 2020 (i.e. prior to loan effectiveness) (\$)</b>
CW06 Installation of water storage tanks and drip irrigation system	DOH	300,000	150,000
CW07 Field preparation	DOH	650,000	130,000
CW08 Animal proof fencing	DOH	700,000	300,000
G01 Horticulture planting materials	DOH	350,000	200,000
G03 Horticulture inputs	DOH	280,000	70,000
G04 Farm equipment	DOH	85,000	40,000
G02 Computing software	Both	63,000	30,000
CS01 Construction supervision	DIPH	150,000	10,000
CS02 PMU consultants	DOH	1,050,000	105,000
<b>Total</b>		<b>3,628,000</b>	<b>1,035,000</b>

43. DOH and DIPH are advised that approval of advance contracting and retroactive financing does not commit ADB to finance the investment program.

## **B. Procurement of Consulting Services**

44. EA will recruit all consultants following the ADB Procurement Policy and its associated project administration instructions and/or staff instructions. The terms of reference for all consulting services are detailed in Attachment A.

45. About 50 person-months of international and 1,986 person-months of national consulting services are required to (i) undertake feasibility studies for priority investments, (ii) prepare detailed engineering designs and bidding documents, and (iii) strengthen the institutional capacity of the EA. EA will engage consulting firms using the quality- and cost-based selection method (with a quality–cost ratio of 90:10), least-cost selection, or direct contracting, as specified in the procurement plan. The EA/IA shall submit to ADB copies of the signed contracts for creation of PCSS.

## **C. Procurement of Goods and Civil Works**

46. All procurement of goods and civil works will follow the ADB Procurement Policy (2017, as amended from time to time) and its associated regulations and staff instructions. All procurement packages are subject to ADB approval using the prior review procedure.<sup>14</sup>

47. Before the start of any procurement, ADB and the government will review the public procurement laws of the central and state governments to ensure consistency with the ADB Procurement Policy. EA/IA shall submit to ADB a copy of the signed contract for creation of PCSS.

## **D. Procurement Plan**

48. The procurement plan, prepared through the strategic procurement planning exercise, is in Attachment B, describing all procurement of goods and works to be undertaken for the project for the first 18 months of implementation. Within 1 year after the date of loan effectiveness, PMU may submit a revised procurement plan for ADB approval that captures any change to all ongoing

<sup>14</sup> Information on prior review approval procedure is available in <https://www.adb.org/documents/procurement-review>.

procurement and planned procurement for the entire project. The plan shall be updated on the same basis at least annually or as the need arises for the duration of the project. The update shall always include updated cost estimates.

#### **E. Consultant's Terms of Reference.**

49. Terms of References for consultants to be recruited by the PRF project is detailed in Attachment A.

### **VI. SAFEGUARDS**

50. **Prohibited investment activities.** Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth in Appendix 5 of the Safeguard Policy Statement.

#### **A. Environmental Safeguards**

51. **The project is classified as *Category C* for environment** in accordance with ADB's Safeguard Policy Statement. The PRF's pilot-test will consist of small construction and installation activities of storage tanks, intake structures, distribution pipes and conveyance system, and mostly rehabilitation. The PRF pilot activities are likely to have minor environmental impacts, mostly on the increase of dust and noise levels, and hazards on occupational health and safety. Although environmental risks are minor, the mitigation measures are added to employer's requirements in the bidding documents to ensure that the PRF's piloting activities are done within the scope as a Category C project. Also, the Environmental Projection Guidelines (see Attachment) are separately prepared to screen pilot sites and minimize environmental safeguards impacts.

52. **Monitoring.** A construction supervision firm will be recruited for monitoring the construction of irrigation works packages. Aside from monitoring the construction progress and ensuring quality construction, they will supervise the contractors to meet the compliance on environment and social safeguards. The PMU will monitor and document the implementation of environment mitigation measures and social safeguard requirements as part of the quarterly progress reports (QPRs).

53. **Biodiversity and Natural Resources.** As per the state's policy, landowners or farmers are allowed to cut a maximum of 5 trees, and beyond that would require permission from the government. If required, DIPH and DOH will plant trees along the periphery of pilot-test areas as a form of compensatory tree plantation activity. Also, both will obtain confirmations from concerned government department for the permission for laying pipelines. There is low biodiversity<sup>15</sup> at the water sources and irrigation areas. The wildlife present are common species, and not endangered nor critically endangered ones, however, the project will not place harm to existing wildlife, and conserve the natural resources of the pilot-test areas.

54. **Waste Disposal and pollution control.** In compliance to the government's policy, the implementation of the PRF will follow standards for safe disposal of construction wastes, used oil

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<sup>15</sup> p. 34, ADB SPS 2009: The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

and discarded paints. DIPH and DOH will follow standards for controlling the pollution on ambient air, water quality and noise levels such as from the following rules:

- i. Water (Prevention and Control of Pollution) Act, 1974, Amendment 1988 and thereafter
- ii. Air (Prevention and Control of Pollution) Act, 1981
- iii. Hazardous Waste (Management, Handling, Trans-boundary Movement) Rules, 2008
- iv. Construction and Demolition Waste Management Rules 2016
- v. Noise Pollution (Regulation and Control) Rules, 2000 and Amendment 2002 and 2006

55. **Occupational Health and Safety.** Workers will be provided with a safe and healthy working environment, taking into account risks inherent to the type of construction and specific classes of hazards in the pilot-test areas. PMU will take steps to prevent workers' accidents, injury, and disease (i.e. COVID-19) arising from, associated with, or occurring during implementation of pilot test irrigation schemes.

56. **Physical Cultural Resources.** There are no physical cultural resources<sup>16</sup> that will be affected under the PRF implementation. PMU will continue to ensure no damage and impacts to physical cultural resources. Access of people for entering temples, cremation ground across, and other religious and culturally important places will not be blocked at any the pilot-test sites. The passages will be maintained open as it is even during the PRF implementation.

## **B. Social Safeguards**

57. **Involuntary Resettlement.** The PRF is categorized as *category C* for involuntary resettlement. Construction of the pilot irrigation schemes will be done on government land or right of way, with no non-titleholders present in the pilot areas. The development of 17 plots for demonstration of new model of subtropical horticulture production will be done on farmers own land, with no land acquisition nor physical or economic displacement. PMU has already secured consent from farmer beneficiaries for land utilization. The PMU will enter into agreements, in the form of memorandum of understanding (MOU), with the farmer beneficiaries in case of voluntary land donation for construction of small tanks or laying of pipelines in their field (see Attachment G). The PRF will not result in physical or economic displacement resulting from involuntary land acquisition or involuntary restriction on land use.

58. **Subproject Screening and Categorization.** The PRF subprojects are small in scale with minimal or no negative social impacts, and community-driven, where communities participate in selection and implementation of subprojects. Experience has shown that in similar projects, communities contribute their land for utilization resulting in smooth planning and execution of the subproject with no negative social impacts. However, consistent with the SPS, ADB requires conduct of due diligence to ensure that subprojects will not result in physical or economic displacement, as such each subproject will be screened and categorized.

59. The EA will be responsible for screening and categorization of each subproject under the PRF pilot based on the screening checklist (see Attachment H) in the resettlement framework.

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<sup>16</sup> p. 39, ADB SPS 2009: defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings and may be above or below ground or under water. Their cultural interest may be at the local, provincial, national, or international level.

Based on the screening, the subproject will be assigned to one of the following categories depending on the significance of probable involuntary resettlement impacts:

- a) **Category A** - A proposed project is classified as Category A if it is likely to have significant involuntary resettlement impacts. A resettlement plan, including an assessment of social impacts, is required.
- b) **Category B** - A proposed project is classified as Category B if it includes involuntary resettlement impacts that are not deemed significant. A resettlement plan, including assessment of social impact, is required.
- c) **Category C** - A proposed project is classified as Category C if it has no involuntary resettlement impacts. No further action is required.

60. The involuntary resettlement impacts of an ADB-supported project are considered significant if 200 or more persons will experience major impacts, which are defined as; (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets (income generating). The level of detail and comprehensiveness of the resettlement plan will be commensurate with the significance of the potential impacts and risks. If there are any unanticipated impacts under the PRF, PMU will promptly inform ADB of such impacts, and prepare and implement a resettlement plan that complies with ADB SPS and government laws and regulation.

61. **Land Use and Donation.** The Water Users Association (WUA) will be responsible for providing the land required as per the design of infrastructure development, which shall be regulated as per the Community Operational Manual of the DoH.

62. In case no existing common land is available, then land would be taken by the WUA from individual or individuals through:

- a) Temporary land use (similar to Lease as per the Model Lease formats of the Department of Revenue, Himachal Pradesh;
- b) Gift from individual(s) through registered Gift deed; and
- c) Voluntary donation wherein the donor would automatically become a beneficiary under project activities and no individual or individuals would become landless. Such land will be registered in the name of WUA to avoid any future complications.

63. The WUA shall take affidavit in the form of a MOU from individual farmers whose land may be taken for putting up the irrigation system as per the layout such as construction of water storage tanks, distribution tanks, regulation tank, pipelines, outlets, water hydrant, Kuhl, rising main, etc. Copies of MOU will be provided by the WUA to the PMU for record.

64. In the event of the land donated is not used for the purpose it is granted by the individual farmer, ownership and possession of the said land shall be reverted to him/her without any encumbrances.

65. Donation of private land for various subproject and components of PRF will be allowed only with the following safeguards in place:

- a) Consultation with affected people disclosing project entitlements and benefits against their wish to forgo the entitlements and agree for the consent to use the land.

- b) Land donation do not severely affect the living standards of households and are linked directly to benefits for the community.
- c) Any land donation for the subproject will be confirmed through written record only.
- d) Adequate grievance redress mechanism is in place
- e) Land donated under the PRF do not belong to the poorest or most vulnerable households;
- f) Land donation will be made without any coercion; and
- g) The land is free from any legal disputes or litigation.

66. The EA, prior to obtaining consent from farmer beneficiaries, will ensure that the criteria shown in Table 11 will be observed for land utilization:

**Table 11: Criteria and Guidance Notes on Land Utilization**

Criteria	Guidance Notes
The impacts are marginal (based on percentage of loss and minimum size of remaining assets)	<ul style="list-style-type: none"> <li>• The land taken for utilization does not exceed 10% of the total land owned by the affected household.</li> <li>• The land donated may be donated for permanent non-land assets (small water tanks).</li> <li>• Land for donation will only be accepted if the total land owned by the household is not less than 3000 m<sup>2</sup>. (0.3 hectare)<sup>17</sup></li> </ul>
Impacts do not result in displacement of households or cause loss of household incomes or livelihood	<ul style="list-style-type: none"> <li>• The land is not used for productive purposes</li> <li>• Structures are not affected; there is no physical relocation of households due to land donation.</li> <li>• The affected household does not fall under the category of poor or vulnerable.<sup>18</sup></li> </ul>
The households giving land for donation are direct beneficiaries of the project	<ul style="list-style-type: none"> <li>• Both positive and negative impacts of the project on the affected household are considered.</li> <li>• The affected household can identify the project's direct benefits.</li> </ul>
Land given for donation is free from dispute of ownership or any other encumbrances	<ul style="list-style-type: none"> <li>• The affected household has recognized legal tenure.</li> <li>• The land is not being occupied or used by any other party and if it is, the occupants must be consulted and compensated in accordance with the principles set out in this RF.</li> <li>• Ownership of the land is not disputed</li> </ul>

<sup>17</sup> More than the land supposed to be owned by a BPL household (i.e. 0.25 ha) in the state.

<sup>18</sup> Vulnerable persons include those below the poverty line, landless, the elderly, women, and children, IPs, and those without legal title to land.

Criteria	Guidance Notes
Consultations with the affected households are conducted in a free and transparent manner	<ul style="list-style-type: none"> <li>• The affected household must be informed that they have the right to receive compensation for the land they wish to permit for utilization.</li> <li>• The affected household receives clear and adequate information on the project and participates in project planning.</li> <li>• Provisions for land donation are integrated in the decision-making process at the community level.</li> </ul>
Proper documentation of consultation meetings, grievances and actions taken to address such grievances is accomplished	<ul style="list-style-type: none"> <li>• The agreement is properly documented with signatures of affected person and witnesses.</li> <li>• Consultation meetings, grievances and actions taken to address such grievances are properly recorded.</li> </ul>

67. **Indigenous Peoples.** The PRF is categorized as C for Indigenous Peoples safeguards. While there are scheduled tribes found in the PRF districts, they are not present in the PRF target areas and not among the 600 farmer beneficiaries. These scheduled tribes are a mix of permanent settlers and nomads, with their own cultural and social practices but no collective attachment to distinct habitats and territories, nor to natural resources in these habitats and territories. The PRF does not affect the dignity, human rights, livelihood systems, or culture of IPs or affect the territories or natural or cultural resources that IPs own, use, occupy, or claim as their ancestral domain.

### C. Gender

68. In Himachal Pradesh, women form approximately 50% of the state's rural population, 42% of the labor force in the state and 56% of the total cultivators' population, however, their participation in the farming sector is mainly labor oriented.<sup>19</sup> Women's share of land ownership is negligible. Due to the patriarchal social system of land ownership. Women do not get a direct share or control of farming income as the land ownership is under male members of the households.<sup>20</sup> Reforms in the Panchayati Raj Act, which is related to the local self-government system for rural areas in India, and in some of the regulations for participatory irrigation management have enforced reservation stipulations for women in the elected entities, leading to increased participation of women in decision-making processes.<sup>21</sup>

69. As the ensuing loan is expected to be categorized as Effective Gender Mainstreaming (EGM), the PRF will prepare gender analysis, collect disaggregated baseline information and draft the Gender Action Plan (GAP) for the ensuing loan during PRF. Thus the PRF will ensure that the men and women farmers to get equal opportunities to participate and benefit from all the project components and value addition activities in horticulture value chains and income generating activities under the ensuing loan. The project also proposes to support the state government in promoting functional WUAs and CHPMA in which women's farmer producer organizations membership will comprise at least 30%, and appointments to the chairperson and

<sup>19</sup> Government of Himachal Pradesh, Department of Economic and Statistics. 2017–2018. [Statistical Abstract of Himachal Pradesh](#). Shimla.

<sup>20</sup> Government of Himachal Pradesh, Planning Department. 2017. [Patterns and Context of Rural Livelihoods in Himachal Pradesh](#). Shimla

<sup>21</sup> Gender Statistics, Directorate of Economics and Statistics. [https://himachalservices.nic.in/economics/en\\_IN/index.html](https://himachalservices.nic.in/economics/en_IN/index.html)



vice-chairperson posts of such groups will be gender equitable. These interventions will support women's representation and improve their voice in agriculture decision making as well as strengthen income generation opportunities especially for those from the poor households. The resettlement framework prepared for the PRF formulates measures to ensure that socio-economic conditions, gender impacts, and needs and priorities of women in the PRF project areas are adequately addressed and mitigated.

#### **D. Grievance Redress Mechanism**

70. The PMU will establish and maintain a grievance redress mechanism (GRM) to support the social and environmental safeguards of the project. The GRM will receive, evaluate and facilitate the resolution of impacted people's feedback, including concerns, complaints and grievances about the social and environmental performance at the level of the Project. The GRM will aim to provide a time-bound and transparent mechanism to voice suggestions and appreciations and to resolve social and environmental concerns linked to the project. The project specific GRM is not intended to bypass the government's own redress process, rather it is intended to address stakeholders' concerns and complaints promptly, making it readily accessible to all segments of the community, and is scaled to the risks and impacts of the project. Complainant may access the formal legal system at any time. The safeguards GRM for the PRF is detailed in Attachment D.

### **VII. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION**

#### **A. Monitoring and Evaluation**

71. **Project readiness financing project performance monitoring.** The Department of Horticulture will monitor PRF project performance semiannually and provide consolidated reports to ADB. These reports will include (i) each activity's progress measured against the implementation schedule, (ii) key implementation issues and solutions, (iii) an updated procurement plan, (iv) an updated implementation plan for the next 12 months, and (v) safeguards issues. To ensure PRF projects continue to be both viable and sustainable, the Department of Horticulture should adequately review PRF project financial statements and the associated auditor's report. In the event that an ensuring loan is not approved, the Department of Horticulture will submit a PRF project completion report to ADB within 6 months of physical completion of the PRF project.

72. **Compliance monitoring.** The Project Management Unit will monitor and ensure project compliance with policy, legal, financial, economic, social, environmental, and other loan covenants. All non-compliance issues, if any, will be reported and remedial actions monitored in quarterly progress reports. Each ADB review mission, at least once a year, will also monitor the status of compliance with the loan assurances, raise any noncompliance issues with the government and agree on remedial actions.

73. **Safeguards monitoring.** The annual PRF project performance monitoring will report on safeguards impacts (including safeguards feedbacks, land use and donation), if any. In addition, the periodic reports will assess the quality and compliance with O&M specifications in the infrastructure and livelihood projects. The ADB will disclose the environmental safeguards monitoring report on the ADB website.

## B. Reporting

74. The Department of Horticulture will provide ADB with:
- (i) semiannual progress reports on the PRF project in a format consistent with ADB's project performance reporting system within 45 days of the end of the reporting period;
  - (ii) consolidated annual reports, within 45 days of the end of the reporting period, including (a) progress achieved by output measured against the performance targets; (b) key implementation issues and solutions; (c) an updated procurement plan; (d) an updated implementation plan for the next 12 months; (e) any safeguards issues, including safeguards feedbacks;<sup>22</sup> and
  - (iii) PRF project accounts; Department of Horticulture's audited financial statements, and the associated auditor's report; and Department of Irrigation and Public Health's audited financial statements, and the associated auditor's report.

## VIII. ANTICORRUPTION POLICY

75. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy (1998, as amended to date) relating to the PRF project following ADB's Integrity Principles and Guidelines.<sup>23</sup> All contracts financed by ADB will include provisions specifying ADB's right to review and examine the records and accounts of the executing agency and all PRF project contractors, suppliers, consultants, and other service providers. This includes the examination of project outputs, assets, and all other information that may be considered relevant for audit or inspection by ADB regardless of project completion, termination, or cancellation. Investigation of government officials, if any, shall be requested by ADB to be undertaken by the government. Firms or individuals on ADB's anticorruption debarment list are ineligible to participate in activities that are financed, supported, or administered by ADB; and may not be awarded any contracts under the PRF project.<sup>24</sup> To support these efforts, ADB included relevant provisions in the bidding documents for the PRF project.

76. ADB's Anticorruption Policy designates the Office of Anticorruption and Integrity as the point of contact to report allegations of fraud or corruption among ADB-financed projects or its staff. Office of Anticorruption and Integrity is responsible for all matters related to allegations of fraud and corruption. For a more detailed explanation refer to the Anticorruption Policy and Procedures. Anyone coming across evidence of corruption associated with the Project may contact the Anticorruption Unit by telephone, facsimile, mail, or email at the following numbers/addresses:

by email at [integrity@adb.org](mailto:integrity@adb.org) or [anticorruption@adb.org](mailto:anticorruption@adb.org)

by phone at +63 2 632 5004

by fax to +6326362152

by mail at the following address (Please mark correspondence Strictly Confidential)

Office of Anticorruption and Integrity  
Asian Development Bank  
6 ADB Avenue Mandaluyong City  
1550 Metro Manila, Philippines

<sup>22</sup> The regional departments will present the performance of the completed PRF in the project completion report of the ensuing loan.

<sup>23</sup> ADB. 2015. *Integrity Principles and Guidelines (2015)*. Manila.

<sup>24</sup> ADB. *Anticorruption and Integrity*.

77. The project's website will provide updated, detailed information on project implementation. For example, it will include procurement-related information, such as the list of participating bidders, name of the winning bidder, basic details on bidding procedures adopted, amount of contract awarded, and the list of goods and/or services procured.

## **IX. ACCOUNTABILITY MECHANISM**

78. People who are, or may in the future be, adversely affected by the PRF project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted PRF projects can voice and seek a resolution for their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>25</sup>

## **X. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL**

79. This section will be updated during implementation to provide a chronological history of changes to implemented arrangements.

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<sup>25</sup> ADB. [Accountability Mechanism](#).

## ATTACHMENT A

The draft terms of reference for procurement and consulting services packages are prepared as follows. The final terms of reference are subject to further review and clearance by the executing agency and the Asian Development Bank.

### Terms of Reference for Consulting Services



**Department of Irrigation and Public Health  
(JAL SHAKTI VIBHAG)  
Himachal Pradesh, India**

No. [add DIPH EOI reference numbers]

Date 31 August 2020

**Request for Expression of Interest for Consultancy Services of  
Construction Supervision of Irrigation Civil Works & Electro- Mechanical  
works under  
Himachal Pradesh Subtropical Horticulture, Irrigation, and Value Addition  
Readiness (HPSHIVA-R) Project**

***Package No. : CS1 [DIPH official package reference needed]***

**Package Name: Construction Supervision Consultant for CW1, CW2, CW3 and CW4 works**

1. The Government of India (GoI) has applied for financing from the Asian Development Bank (ADB) towards the cost of Himachal Pradesh Subtropical Horticulture, Irrigation and Value Addition Project: Project Readiness Facility (HP SHIVA PRF) Project. Part of the financing will be used for payments under the contract named above.
2. The Department of Irrigation and Public Health (Jal Shakti Vibhag), Himachal Pradesh (the "Employer") invites Expression of Interest (EOI) for providing Consultancy Services of Construction Supervision of Irrigation Civil Works, Electro-Mechanical works from the eligible and registered consultants with experience in handling similar work with Government and Externally Funding Agencies.
3. The Consulting firm shall be selected and engaged in accordance with the Guidelines on the Use of Consultants by Asian Development Bank and its Borrowers (Consulting Guidelines) or the ADB Procurement Policy 2017 ("Policy") and the Procurement Regulations for ADB Borrowers 2017 ("Procurement Regulations").
4. Please note that only on-line submission of EOI in ADB's Consultant Management System (CMS) <https://cms.adb.org> is allowed All off-line and manual submission of EOI is not permissible and will not be considered.
5. Interested consulting firms are invited to submit EOI in ADB CMS on or before 14. September 2020 through below link: [ link to be added ]
6. The details of consultancy assignment are-

<b>Start Date of Publication</b>	<b>Deadline for Submitting EOI</b>
31 August 2020	14 September 2020
<b>Duration of Assignment (In Months)</b>	<b>Tentative commencement date</b>
12	December 2020
<b>Anticipated completion date</b>	<b>Types of consultants</b>
December 2021	Firm
<b>Selection method</b>	<b>Estimated Budget (INR)</b>
Least Cost Selection	69,33,150

7. For your online submission, your EOI should demonstrate technical competence and geographical experience based on project references entered under the CMS profile. We encourage you to update project information under your CMS prior to filing EOI.

**Himachal Pradesh, India**  
**Phone No: +91 1972-22346**  
**Engineer**  
**M.+919816573293**  
**Project**  
**Hamirpur, Himachal Pradesh**  
**Mail Id:- seiph\_hmr123@rediffmail.com**

**Sd/-**  
**Superintending**  
**cum Deputy Director**  
**HP-SHIVA**

## **Construction Supervision of Irrigation Civil Works & Electro-Mechanical works**

### **Terms of Reference for Consultants**

#### **1. Objective and Purpose of the Assignment**

##### **Background**

The Government of India (GoI) has applied for financing from the Asian Development Bank (ADB) towards the cost of Himachal Pradesh Subtropical Horticulture, Irrigation, and Value Addition Readiness Project.

This PRF will support the State of Himachal Pradesh with preparing the project and ensuring implementation readiness, thereby facilitating the timely and cost-effective achievement of the ensuing project's outcomes and outputs. To achieve high level of project readiness of the ensuing loan, the PRF will (i) support project preparation, detailed design activities, and advance procurement actions; (ii) pilot activities to demonstrate a new model of subtropical horticulture production technology, marketing and irrigation development systems to the state, which will then be scaled up under the ensuing loan; and (iii) capacity building of the executing and implementing agencies which have not implemented projects with ADB, for a smooth transition from preparation to implementation. The PRF's pilot activities will comprise new irrigation systems to service the new subtropical horticultural farming practices, and establishment of new production technologies and marketing systems.

Under the output 1 of the PRF, Department of Irrigation and Public Health (Jal Shakti Vibhag), shall construct /rehabilitate 17 irrigation schemes introducing innovative technologies for water extraction, distribution and storage, and enhanced climate and disaster resilience, and establish and capacitate water user associations on the

constructed irrigation schemes with women's participation and gender equitable leadership. A brief description of the project area and works is given below:

Sl. No.	District	Subproject	Package No.	Brief Work Description
1	Hamirpur	LIS Kehdroo	CW -2	Approach Path, Duckbill Headweir, Main Storage Tank, Sump well, Main Delivery Tank, Office for WUA, Rising Main, Pumping Machinery, HDPE Distribution System, Supply of Power
2		LIS Bhaleu		
3	Mandi	LIS Binga	CW-1	Intake Works, Pump House, Pumping Machinery, Collection Tank, Sump Well, Main Delivery Tank, HDPE Distribution System, Supply of Power (Including Solar Power), Metering System
4		LIS Sandhole		
5		LIS Dabrot		
6		LIS Kalswai at Ghamtal		
7		LIS MatourTanda		
8		LIS Kalahod		
9	Bilaspur	FIS KothiMajher	CW-3	Intake Works, Headweir, Sedimentation Tank, Reinforcement Cement Concrete Box Chamber, Office for WUA, Pump House, Pumping Machinery, Main Storage Tank, Sump Well, Main Delivery Tank, HDPE Distribution System, Providing & Fixing Automatic Rope Pulley arrangement with water sensor, Clariflocculator, Reinforcement Cement Concrete Dyke
10		LIS Talwara		
11		MLIP Dulet		
12		LIS Lanjhta		
13	Kangra	LIS Lahat	CW-4	Approach Path, Storage Tank, Desilting Tank, Sedimentation Tank, Main Delivery Tank, Reinforcement Cement Concrete Main Channel, Road Crossing, HDPE Distribution System, Supply of Power (Including Solar Power, Rising Main, Pumping Machinery
14		LIS Rit		
15		FIS Sehal		
16		FIS Lower Baijnath		
17		FIS Dehan Garoon		

## Objective

The Department of Irrigation and Public Health (Jal Shakti Vibhag), Himachal Pradesh (the "Employer") has initiated the tendering processing for these works as one contract per district. Construction supervision firm shall be recruited to supervise the construction progress and quality for these contracts.

## 2. Scope of Work

The major assignment in this consultancy shall be construction supervision and contract monitoring of 16 irrigation schemes across 4 Districts. The work shall also consist, wherever required, (a) conduct necessary surveys, investigation and tests (b)

technical appraisal of subprojects and updating preliminary designs (c)review detailed engineering designs; (d) preparation of monitoring reports, etc.

The construction supervision engineer shall report to Executive Engineer, Hamirpur, DIPH (Jal Shakti Vibhag). Duty Station shall be based Hamirpur for the Construction Engineers and Project Coordinator cum MIS Associate. Site Supervisors will be located at respective districts to ensure the coverage of irrigation schemes are supervised on daily basis.

Period of Engagement will be 12 months with the extensions if the irrigation works contracts are extended.

### **General tasks of the team**

#### **(i) Inspection and supervision**

- Become familiar with Department of Irrigation and Public Health (Jal Shakti Vibhag) construction policies, site selection and management requirements and with all key project documents, in particular the irrigation system design documents, due diligence reports and safeguard policies.
- Work closely with the DIPH (Jal Shakti Vibhag) to engender a strong team commitment to the agreed construction plans and processes of the project, and to guide the processes forward in order to achieve the sub-project's plans and, ensuring that quality of construction in the field are in compliance with the DIPH (Jal Shakti Vibhag) and Project Engineering/Technical guideline.
- Conduct daily site visits to irrigation construction sites in the four districts on 6 days per week/ 8 hours per day basis and additionally during the weekends in cases of concrete casting or other important critical construction elements.
- Ensure that the contractor provides shop drawings of all electro-mechanical equipment and that such equipment is inspected before leaving the factory for quality of materials and accuracy of assembly as required by the approved shop drawings and specifications and Government of India standards. In the event that it is physically impractical for the supervising engineers to visit the supplier factory, then the PMU, in consultation with the supervising engineers, will contract an "approved agent" to conduct the pre-delivery equipment inspection.
- Visit each irrigation sites at least once per week and maintain daily logs of site visits. These must be certified at the end of each visit by the chairperson or vice chairperson and at least one other member of the irrigation scheme Water User Association (WUA).
- Assist the WUA members to read and understand the applicable contract and plans and apply them to the work at hand.
- Ensure the contractor meets the national and/or state's requirements relevant to environment health and safety (EHS) as specified in the contract. This includes workers trainings, use of personal protective equipment, use of barricades, availability of safe drinking water, availability of mobile toilet, disposal of waste or muck at designated place, use of diesel generator set with acoustic enclosures and muffler, transportation of material under covered conditions, availability of first aid box at construction site, site and waste management, oil or chemical spills, condition of the site, rehabilitation of disturbed sites, removal of any trees,management of historic and cultural resources, and provision of clean water

and sanitation facilities. Any matters arising in relation to these requirements should be included in monthly progress reports.

- Perform compliance inspection on EHS requirements and ensure government standards are met by the contractor. Report findings on the inspections to PMU and recommend solutions on EHS issues.
- In case non-compliance to EHS requirements, provide guidance to the contractors on how to address issues on EHS.
- Certify all structural works before casting and be physically present during the casting of the important critical construction elements.
- Ensure that the contractors and WUA are aware of the Grievance Procedures available to them.
- Participate in the final inspection of completed works and in the certification of completion.
- Participate in the inspection at the end of the defects and liabilities period if the contract is still in force

**(ii) Construction Quality**

- Ensure that all construction work is in accordance with the construction drawings including dimensions, lines and levels.
- Certify that formwork dimensions, alignment and quality together with reinforcement size and arrangements are correct before the casting of any structure.
- Inspect all materials to ensure they meet contracted specifications.
- Check concrete mix to ensure it meets contract specifications and ensure that samples are randomly selected for compression testing.

**Codes Of Practice: -**

IS: 456	Code of practice for plain and reinforced concrete
IS: 457	Code of practice for general construction of plain and reinforced concrete for dams and other massive structures
IS: 3370	Code of practice for concrete structures for storage of liquids (Parts 1 to 4)
IS: 3935	Code of practice for composite construction.
IS: 2204	Code of practice for construction of reinforced concrete shell roof.
IS: 2210	Criteria for the design of reinforced concrete shell structures and folded plates
IS: 2502	Code of practice for bending and fixing of bars for concrete reinforcement
IS: 5525	Recommendation for detailing of reinforcement in reinforced concrete works
IS: 2751	Code of practice for welding of mild steel plain and deformed bars used for reinforced concrete construction



- IS: 9417 Specification for welding cold worked bars for reinforced concrete construction
- IS: 3558 Code of practice for use of immersion vibrators for consolidating concrete
- IS: 3414 Code of practice for design and installation of joints in buildings.
- IS: 4326 Code of practice for earthquake resistant design and construction of building
- IS: 4014 Code of practice for steel tubular scaffolding (Parts 1 & 2)
- IS: 2571 Code of practice for laying insitu cement concrete flooring.
- IS: 7861 Code of practice for extreme weather concreting: Part 1  
Recommended practice for hot weather concreting

### **Applicable Codes for RCC**

#### **Materials: -**

- IS. 269 Specification for 33 grade ordinary Portland cement.
- IS. 455 Specification for Portland slag cement.
- IS. 1489 Specification for Portland-pozzolana cement (Part 1&2).
- IS: 8112 Specification for 43 grade ordinary Portland cement
- IS: 12269 Specification for 53 grade ordinary Portland cement
- IS: 12330 Specification for sulphate resisting Portland cement
- IS: 383 Specification for coarse and fine aggregates from natural sources for concrete.
- IS: 432 Specification for mild steel and medium (tensile steel bars and hard-drawn steel) wires for concrete reinforcement (Part 1 and 2)
- IS: 1786 Specification for high strength deformed steel bars and wires for concrete reinforcement
- IS: 1566 Specification for hard-drawn steel wire fabric for concrete reinforcement
- IS: 9103 Specification for admixtures for concrete
- IS: 2645 Specification for integral cement water- proofing compounds
  
- IS: 4990 Specification for plywood for concrete shuttering work

### **Material Testing**

- IS. 4031 Methods of physical tests for hydraulic cement (Parts 1 to 15)
- IS: 4032 Method chemical analysis of hydraulic cement.
- IS: 650 Specification for standard sand for testing of cement.
- IS: 2430 Methods for sampling of aggregates for concrete.
- IS. 2386 Methods of test for aggregates for concrete (Parts 1 to 8)

IS: 3025 Methods of sampling and test (physical and chemical) for water used in industry

IS: 6925 Methods of test for determination of water soluble chlorides in concrete admixtures

### **Material Storage**

IS: 4082 Recommendations on stacking and storing of construction materials at site

### **Concrete Mix Design**

IS:10262 Recommended guidelines for concrete mix design.

SP:23 (S&T) Handbook on Concrete Mixes

### **Concrete Testing**

IS: 1199 Method of sampling and analysis of concrete.

IS: 516 Method of test for strength of concrete.

IS: 9013 Method of making, curing and determining compressive strength of accelerated cured concrete test specimens.

IS: 8142 Method of test for determining setting time of concrete by penetration resistance.

IS: 9284 Method of test for abrasion resistance of concrete.

IS: 2770 Methods of testing bond in reinforced concrete.

**HDPE Pipe:** - The HDPE pipes and specials shall conform to IS- 4984:1995. HDPE pipes and other fitting' s like Tee, bends, adopter and pieces etc. shall be jointed with Butt fusion welding. The metal part of Quick-coupled (QC) shall be manufactured from aluminium alloy. Holding attachment must be strong enough to with stand the pressure two times the working pressure of the pipe for which attachment are provided. The HDPE pipe shall be ISI marked.

- Ensure that structures are properly compacted during casting including Proctor testing of fill and backfill randomly selected.
- Spend at least 2 hours at each site visited. Inspect the constructed works. Train construction foremen on how to avoid and, if necessary, rectify any defects. Explain the next stages of the construction to the WUA. Point out the key issues they may need to look out for and respond to any questions they may have.
- Spend at least 4 hours on site during major concrete casting works to ensure proper mix of materials and to ensure compliance with stated standards.

### Matrix of Experts, Job description and qualifications

Expert	Numbers	Person Month/ Expert	Indicative Job Description	Qualification
<b>Key Experts</b>				
<b>Team Leader cum - Construction Supervision Engineers - Civil</b>	<b>1</b>	<b>12</b>	<ul style="list-style-type: none"> <li>• Support employer in all aspects of contract management and construction supervision to ensure that works are executed on time and per the specified quality.</li> <li>• Visit the project sites as per agreed plan with</li> <li>• Ensure that all the construction drawings and any revisions are approved and available before starting construction of any component of the project.</li> <li>• Ensure that all civil works components/ items of work are executed as per relevant BIS codes standards and all material used should also confirms to standards as per BIS codes and executed components should confirm to approved specifications.</li> <li>• Ensure all necessary tests are conducted for quality assurance as per relevant BIS codes and records are maintained for these tests.</li> <li>• Supervise works for all the site supervisors.</li> <li>• To impart necessary instructions to site supervisor or construction contractors for improvement of works quality and ensure compliance of same.</li> </ul>	<ul style="list-style-type: none"> <li>• Civil Engineering degree from a recognized Indian university or equivalent from an overseas institution.</li> <li>• Five years of work experience in water storage and distribution construction.</li> <li>• Evidence of direct personal responsibility for the construction of irrigation or other water control systems.</li> <li>• Familiarity with Asian Development Bank or World Bank construction systems and procedures an advantage.</li> <li>• Fluency in English an advantage.</li> <li>• Willingness to work at district level in Himachal Pradesh.</li> <li>• Willingness and ability to travel daily to construction sites using own transport and / or local transport including taxis, boats and motor bikes as required.</li> <li>• Willingness to transfer skills to contractors, construction staff and members of village WUAs.</li> <li>• Familiar with EHS in the field of construction and understand relevant government requirements.</li> </ul>

			<ul style="list-style-type: none"> <li>• Prepare all necessary reports.</li> </ul>	
<b>Construction Supervision Engineers-Electrical</b>	<b>1</b>	<b>12</b>	<ul style="list-style-type: none"> <li>• Visit the project sites for the electro-mechanical components delivery, installation and commissioning.</li> <li>• Ensure that all supplied material and component executed are as per relevant BIS standards and approved specifications.</li> <li>• Ensure all necessary tests are conducted for quality assurance and records are maintained for these tests.</li> <li>• To impart necessary instructions to site supervisor or construction contractors for improvement of works quality and ensure compliance of same.</li> <li>• Prepare all necessary reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Electrical Engineering/ Mechanical Engineering degree from a recognized Indian university or equivalent from an overseas institution.</li> <li>• Five years of work experience in installation, running and maintenance of pumping machinery and allied accessories for lifting of water.</li> <li>• Evidence of direct personal responsibility for irrigation or other water control systems projects.</li> <li>• Willingness to work at district level in Himachal Pradesh.</li> <li>• Willingness and ability to travel daily to construction sites using own transport and / or local transport including taxis, boats and motor bikes as required.</li> <li>• Willingness to transfer skills to contractors, construction staff and members of village WUAs.</li> </ul>
<b>Non-Key Experts</b>				
<b>Site Supervisor</b>	<b>8</b>	<b>12</b>	<ul style="list-style-type: none"> <li>• Ensure that assigned project sites are visited once everyday for supervision of ongoing works.</li> <li>• Ensure that all works are carried to highest levels of quality and in the required time. Ensure that work is carried out as per the contract, minimise variation, track and assess variation.</li> <li>• Prepare all necessary reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Civil Engineering Diploma from a recognized Indian institute or equivalent from an overseas institution.</li> <li>• Three years of work experience in water storage and distribution construction.</li> <li>• Willingness to work at cluster level in Himachal Pradesh.</li> <li>• Willingness and ability to travel daily to construction sites using own transport and / or local transport including</li> </ul>

				taxis, boats and motor bikes as required. <ul style="list-style-type: none"> <li>• Willingness to transfer skills to contractors, construction staff and members of village WUAs.</li> <li>• Familiar with EHS in the field of construction and understand relevant government requirements.</li> </ul>
<b>Project Coordinator</b>	<b>1</b>	<b>12</b>	<ul style="list-style-type: none"> <li>• Support team leader in project coordination, data entry, preparation of reports.</li> <li>• Support in coordination with the employer and the site supervisors</li> <li>• Prepare and Manage a project MIS</li> <li>• Prepare all necessary reports.</li> </ul>	<ul style="list-style-type: none"> <li>• Graduate from a recognized Indian university or equivalent from an overseas institution. With certificate/diplomas in computer applications/programming</li> <li>• Minimum three years of project MIS development and Management experience.</li> </ul>

### Distribution of Site Supervisors for Irrigation Schemes

S.No	District	No's of Clusters	Name of scheme	Site Supervisor
1	Mandi	6	LIS Binga	2
			LIS Sandhole	
			LIS Dabrot	
			LIS Kalswai at Ghamtal	
			LIS MatourTanda	1
			LIS Kalahod	
2	Bilaspur	4	FIS KothiMajher	2
			LIS Talwara	
			MLIP Dulet	
			LIS Lanjhta	
3	Hamirpur	2	LIS Kehdroo	1
			LIS Bhaleu	
4	Kangra	5	LIS Lahat	2
			LIS Rit	
			FIS Sehal	
			LIS Lower Baijnath	
			FIS DehanGaroon	

### 3. Output/Reporting Requirements:

- **Inception report:** An inception report within 2 weeks of signing up of the contract including a work plan for the whole contract period.
- **Mid Monthly Reports:** Prepare mid-monthly progress reports for all irrigation schemes as per standardized reporting forms.
- **Monthly Reports:** Prepare detailed monthly progress reports giving the scheduled and actual progress of each of the irrigation schemes.
- Check and submit additional reports as necessary to support contractors' invoices requesting payment.
- **Contract Completion Report:** Within 60 days of the completion of each irrigation scheme contract, submission of a contract completion reports as per format agreed with the employer.
- Attend the monthly meetings of the whole engineering team held in Shimla to assess the progress and quality of the work in the previous month, discuss and solve problems together.

## Package CS2

### PMU Technical Support ToRs.

1. The Government of Himachal Pradesh (GOHP) intends to apply the proceeds of an Asian Development Bank loan for the implementation of the Himachal Pradesh Subtropical Horticulture, Irrigation and Value Addition Project (HP-SHIVA). The overall HP-SHIVA project, comprising a Project Readiness Facility ((PRF) US\$10 million over two years) and the ensuing loan, aims to increase the income of at least 25,000 farm households in seven districts (Bilaspur, Hamirpur, Kangra, Mandi, Solan, Sirmour and Una) of subtropical areas of Himachal Pradesh. In the long-term, the HP-SHIVA project will contribute to (i) increased income of rural households in Himachal Pradesh; and (ii) strengthened climate resilience in Himachal Pradesh. The HP-SHIVA project will expand irrigation to farmers, increase subtropical horticulture production and its climate resilience, and raise the profitability and farm gate price of subtropical horticulture production through value chain development of targeted commodities.
2. Project Readiness Facility (PRF) loan will pilot the development of drip-irrigated high-density horticulture production at 17 locations in 4 districts (Bilaspur, Hamirpur, Kangra, Mandi) and 13 blocks incorporating 168 ha of irrigated land across 16 irrigated areas and involving 480 male and female beneficiary landowning households.
3. The PRF will have the following four outputs:
  - (i) **Output 1: Irrigation infrastructure development and farmer management systems established.** This output will be management by DIPH. Output 1 will (a) construct or rehabilitate 16 irrigation schemes introducing innovative technologies for water extraction, distribution and storage, and enhanced climate and disaster resilience (PRF pilot); (b) establish and capacitate WUAs on the constructed irrigation schemes with women's participation and gender equitable leadership; and (c) finalize the draft WUA act to be submitted for the HP legislative assembly's enactment.
  - (ii) **Output 2: Subtropical horticulture production technology and marketing systems demonstrated.** This output will be managed by DOH. Output 2 will: (a) develop 17 subtropical horticulture plots covering 168 hectares, engaging approximately 600 male and female farmers for irrigated high- and ultra-high density production of citrus, guava, litchi and pomegranate (PRF pilot); (b) fence all horticulture plots to protect from animal predation (PRF pilot); (c) form CHPMA in the PRF areas and build their capacities for business/marketing; and (d) facilitate the development of CHPMA investment plans for subtropical horticulture value addition and market development.
  - (iii) **Output 3: Enabling environment, tools and capacity for promoting irrigated subtropical horticulture provided.** This output focuses on developing capacity building tools and creating an enabling environment for the implementation of the ensuing project. Specifically, the project will: (a) support DOH to prepare the Himachal Pradesh Horticulture Sector Development Strategy and Investment Plan 2023-2030; (b) provide

technical training and experimental study tours, as well as investment project management including safeguards, procurement, gender, financial management and institutional strengthening for DOH and DIPH staff; (c) train CHPMA members on orchard management through preparing the packages of practice for key subtropical horticulture crops and providing on-site training; (d) provide technical support to subtropical horticulture nurseries; and (e) establish scientific and project monitoring system in the Project Management Unit (PMU).

**(iv) Output 4: Ensuing investment project and its implementation readiness prepared.** This output will support DOH and DIPH to prepare the feasibility studies, detailed engineering design and surveys, due diligence assessment, safeguards preparation work and bid documents for the ensuing loan, supported by PRF consultants. Possible public-private partnership pathways will be explored in collaboration with the Private Sector Operations Department as part of the ensuing loan preparation.

1. The PRF will be coordinated by Project Management Unit (PMU) led by the Department of Horticulture and including DOH and Department of Irrigation and Public health (DIPH) technical and administrative staff.
2. To strengthen the PMU project implementation capacity, the PMU will individually recruit national gender, social safeguard, environment safeguard, data management, Geographic Information System (GIS) and financial and procurement management, specialists to support the PMU with project implementation. Terms of reference for these positions are as follows:

Position: **Gender and development specialist**

Location: PMU

Category : National Consultant

Period of Engagement : 9.6 person months over 2 years (4.8, 4.8 person months).

Reports to: Project Director

Positions Supervised: None

#### **QUALIFICATION GUIDE**

##### **Qualifications**

- Master's degree in social sciences, gender studies, development studies or related discipline;
- At least 10 years of relevant experience in gender-related programming / projects, rural community development and women's economic empowerment;
- Familiarity with policies and practice in India of donor-funded projects, preferably with ADB-financed projects;
- Skills in designing and delivering capacity building and awareness-raising training courses related to gender and social inclusion;
- Strong analytical and problem solving and communication skills;
- Strong networking, team-building, decision-making, organizational skills;
- Computer literate.

#### **JOB SPECIFICS**



**Job Objective:**

- The Gender and Development Specialist ensures that gender development mechanisms policies, principles, procedures and requirements are integrated into all project activities and are compliant with ADB and GOI standards.

**Job Outputs:**

- By mid PY2, prepare a Gender Action Plan that clearly specifies how the project will address gender and development concerns in the HP-SHIVA project
- By end PY1, facilitation guides to ensure the active participation of women and other vulnerable groups;
- By end PY1, capability building modules on gender development for DoH and DIPH staff and WUA and CHPMA members and committees;
- By end PY1, a plan for increasing women farmer participation in training and access to information;
- Required monthly and quarterly reports.

**Primary Tasks:****As Focal Person for Gender Equality and Social Inclusion:**

- i. Review the SPRSS to confirm its relevance for target project areas.
- ii. Design and deliver awareness-training courses / capacity building in gender equity and women's empowerment; prevention of gender-based violence and sexual harassment in the workplace, and the rights of the child, at the start of the project for all project staff and other stakeholders as appropriate.
- iii. Work closely with the implementing partners in all project areas and support them in implementing the activities that constitute the Gender Action Plan.
- iv. Ensure that gender and social inclusion issues are effectively addressed during all phases of the project; and assess and carefully track subtropical horticulture-based livelihood developments of women, youth and other vulnerable groups.
- v. Facilitate knowledge-sharing on gender and social inclusion related issues, including through partner forums, web pages and reports and including lessons learned / best practice from India and elsewhere where relevant.
- vi. Design, as part of the HP-SHIVA baseline survey, a household representative aimed at obtaining data on the gender division of labor in farming and related productive activities in farm households and in reproductive work. information that may be focused within the survey will include: (i) gender-based patterns of work allocation; (ii) access to and control over productive resources; (iii) patterns of male and female access to benefits arising out of their labor (wages, incomes and profits, savings) and control over the use of such benefits; (iv) relative access of women and men to training and extension for improved productivity and incomes; and (v) gender-based opportunities and constraints on participation in decision making.
- vii. Support HPSHIVA PRF to develop a gender action plan for activities under the ensuing loan and ensure women farmers participate and benefit from all the project components. Additionally, at the level of strategic gender needs, on the basis of the foregoing gender analysis, the consultant will be required to develop strategy to promote women's full participation in HPSHIVA project planning, implementation, access to benefits from the project, and management, monitoring, and evaluation.

- viii. Ensure that all results of the gender analysis are incorporated in the project design, implementation, and evaluation.

**At project management level:**

- i. Provide leadership for implementing of GAP and particularly lead and ensure that women's empowerment indicators are effectively incorporated into the M&E processes.
- ii. Review implementation and provide feedback on how to achieve best possible project outcomes with respect to gender equity and women's empowerment.
- iii. Prepare Annual Work Plans and Budgets and regular Project Progress Reports following GoHP and ADB rules and guidelines; as well as any other gender reports as required and requested by the EA.
- iv. Work on emerging plans with project specialists and recommend good-practice gender-sensitive methods relevant to the component under consideration. This should include advocating with decision-makers in each sector for gender/diversity responses, and the rights of marginalized groups.
- v. Ensure that there are adequate communication materials on gender issues.

**At project implementation level:**

- i. Disseminate evidence for influencing policy and practice.
- ii. Prepare a plan for increasing women farmer participation in training and access to information and extension services on group formation and management, financial and business management, and entrepreneurship
- iii. Participate actively in networks of and for women and marginalized groups and facilitate linkages among these groups. Network with all gender-related organizations and other departments related to the project.
- iv. Guide and assist community WUA and CHPMA facilitators in their outreach to rural communities; interact with women in communities to gain better understanding of women's' perceptions and guide service providers in approaches to integrating women into project activities.
- v. Review the participation of women in project activities and decision-making processes and make recommendations to improve processes.
- vi. Perform other tasks as may be assigned by the Project Director.

Position: **Social Safeguards specialist**

Location: PMU

Category: National Consultant

Period of Engagement: 9.6 person months over 2 years (4.8, 4.8 person months)

Reports to: Project Director

Positions Supervised: None

**QUALIFICATION GUIDE**

**Qualifications**

- Master's degree in social sciences, development studies or related discipline;
- At least 10 years of relevant experience in social safeguards monitoring and management;

<ul style="list-style-type: none"> <li>• Familiarity with policies and practice in India of donor-funded projects, preferably with ADB-financed projects;</li> <li>• Experience in developing strategies for community-led development programs;</li> <li>• Strong analytical and problem solving and communication skills;</li> <li>• 3 years of experience working in the field of grievance redress will be an advantage;</li> <li>• Strong networking, team-building, decision-making, organizational skills;</li> <li>• Computer literate.</li> </ul>
<b>JOB SPECIFICS</b>
<p><b>Job Objective:</b></p> <ul style="list-style-type: none"> <li>• The Social safeguards specialist will ensure that social safeguards, and feedback handling mechanism policies, principles, procedures, and requirements are integrated in all project subprojects, are operational, and are compliant with GoHP and ADB standards.</li> </ul>
<p><b>Job Outputs:</b></p> <ul style="list-style-type: none"> <li>• By mid PY 2, a poverty and social analysis survey (as part of the HP-SHIVA baseline survey) that provides a baseline against which envisaged improvements in the communities' lives can be measured</li> <li>• Ensure the integration of social safeguards in subproject planning and implementation;</li> <li>• Capability building modules on social safeguards and feedback handling mechanisms;</li> <li>• Required monthly and quarterly reports;</li> <li>• Periodic and annual project social safeguards survey;</li> <li>• Annual project social safeguards report;</li> <li>• Occasional social safeguards studies.</li> </ul>
<p><b>Primary Tasks:</b></p> <p><b>As Focal Person for Social Safeguards</b></p> <ol style="list-style-type: none"> <li>Determine the capacities and assess the needs of the project teams for them to be able to implement subprojects based on the social and cultural context of the communities they are working with;</li> <li>Identify key stakeholders (poor and vulnerable groups in particular), their project related interests and any socio-economic barriers to delivery of project benefits;</li> <li>Recommend strategies for addressing the concerns of these stakeholders and maximizing the socio-economic benefits of the projects;</li> <li>Consult stakeholders in the proposed project areas and prepare, as part of the HP-SHIVA baseline study, a poverty and social analysis that provides a baseline against which envisaged improvements in the communities' lives can be measured;</li> <li>Train relevant PMU staff and other relevant agencies in safeguard related project policies, principles, procedures and requirements.</li> <li>Capacitate project implementers to conduct meaningful consultations with the impacted communities during each stage of subproject development.</li> <li>Develop plans and strategies to ensure compliance with project social safeguard requirements;</li> </ol>

- viii. Prepare resettlement plans and/or Indigenous Peoples plans (if required) and ensure livelihood restoration measures for project affected households and businesses are included in any project resettlement plans and the plans are gender sensitive;
- ix. Monitor compliance with safeguards project requirements to identify gaps and issues and provide technical assistance support when necessary.
- x. Facilitate compliance with safeguards reporting requirements.
- xi. Prepare plans, reports, field notes, thought papers and other documents.
- xii. Ensure that related plans and other documents are properly disclosed;
- xiii. Define strategies for information dissemination to effectively communicate social safeguard programs and strategies.
- xiv. Perform other tasks as may be assigned by the Project Director.

**As focal Person for Feedback Handling:**

- i. Develop procedures for the implementation of the project Feedback Handling mechanism (FHM).
- ii. Train relevant PMU and DoH/DIPH staff on the implementation and management of the FHM.
- iii. Ensure proper recording of all feedback and grievances received by the PMU and facilitate resolution and responses to received feedback as appropriate, within the prescribed period.
- iv. Monitor implementation and operation of the GRM, collect and consolidate data on the GRM and prepare regular reports on these data.
- v. Provide training for WUA and CHPMA members and committees on the FHM.

Position: **National Environmental Safeguards Specialist**  
 Location: PMU  
 Duration: 9.6 person months over 2 years (4.8, 4.8 person months)  
 Reports to: Project Director  
 Positions Supervised: None

**QUALIFICATION GUIDE**

- (i) Minimum general experience of 10 years in rural development and environmental safeguards.
- (ii) At least a bachelor's degree in environmental engineering, environmental management or relevant areas.
- (iii) Significant international financial institution project implementation experience.
- (iv) Familiarity with rural development issues in India at sub-national and national levels.
- (v) Ability to develop and maintain close association with government agencies and communities.
- (vi) Strong analytical, communication, documentation and presentation skills with experience in facilitating and chairing meetings with multiple stakeholder groups.
- (vii) Good organizational and planning skills and an ability to adhere to deadlines.
- (viii) Excellent writing skills; fluency in written and spoken English and Hindi.

(ix) Previous experience with the ADB or World Bank would be a distinct asset.
<b>JOB SPECIFICS</b>
<b>Job Objective:</b> <ul style="list-style-type: none"> <li>The environment safeguards specialist will ensure that the Project is implemented in accordance with the environmental safeguarding requirements of the GoHP and ADB. S/he will be attached to the PMU and will coordinate and facilitate all related environment monitoring and reporting activities.</li> </ul>
<b>Job Outputs:</b> <ul style="list-style-type: none"> <li>Ensure the integration of environmental safeguards in subproject planning and implementation;</li> <li>Capability building modules on environmental safeguards and related feedback handling mechanisms;</li> <li>Periodic and annual project environment safeguards survey;</li> <li>Annual project environment safeguards report;</li> <li>Contribution to quarterly progress reports concerning environmental safeguards issues;</li> <li>Occasional environmental safeguards studies.</li> </ul>
<b>Primary Tasks:</b> <ul style="list-style-type: none"> <li>(i) Assist the PMU to comply with the GoHP and ADB environmental safeguard requirements.</li> <li>(ii) Coordinate and facilitate all environmental safeguarding monitoring and reporting activities for the Project.</li> <li>(iii) Preparing detailed monitoring schedules and monitoring environmental reports for submission to ADB to ensure that the environmental safeguard requirements associated with the selected subprojects are effectively met.</li> <li>(iv) Train relevant DoH and DIPH staff and WUA and CHPMA members in environmental safeguard requirements for the Project.</li> <li>(v) Assist the WUA and CHPMA facilitators in integrating environmental safeguard guidelines into the subproject implementation and monitoring.</li> <li>(vi) Provide training to engineers and technicians in the PMU to implement and monitor environmental safeguard measures set out under the RF.</li> <li>(vii) Liaise on environmental matters with other technical agencies that will provide support services to the Project.</li> <li>(viii) Assist the PMU in applying the ADB Rapid Environmental Assessment (REA) checklists, and the environment categorization forms for subprojects.</li> <li>(ix) Assist the PMU in the preparation of Initial Environmental Examinations (IEEs) for category B subprojects.</li> <li>(x) Apply the set of environmental safeguard guidelines to ensure that the subprojects are designed in a way that does not alter the environmental</li> </ul>

	classification of the Project in accordance with ADB's Safeguard Policy Statement 2009.
(xi)	Keep a detailed record of the public consultation activities and ensure that the public has access to public documents related to the environmental safeguarding process.
(xii)	Provide training to the grievance point persons (GPPs) in applying environment aspects of the grievance redress mechanism set out in the RF.

Position: <b>Monitoring and Evaluation SQL Specialist</b> Location: PMU Duration: 24 person months over 2 years (12, 12 personmonths) Reports to: Monitoring and Evaluation Specialist Positions Supervised: None
<b>QUALIFICATION GUIDE</b>
<b>Qualifications :</b> (i). Bachelor's Degree in computer science, Computer Programing. (ii). Must have at least 5 years extensive experience on SQL Development and design tables and indexes for the best database architecture and performance. (iii). Must be knowledgeable in the following databases: MySQL, SQL Server and SQLite. (iv). Working knowledge of written and spoken English. (v). Preferably with working experience on IFI-financed development projects.
<b>JOB SPECIFICS</b>
<b>Job Objective:</b> <ul style="list-style-type: none"> <li>To develop and administer data base system for the HP-SHIVA PRF project.</li> </ul>
<b>Job Outputs:</b> <ul style="list-style-type: none"> <li>Approved technical workshop/session design;</li> <li>Project progress and outcome reports [with source code reviews];</li> <li>Terminal Report.</li> </ul>
<b>Primary Tasks:</b> <ol style="list-style-type: none"> <li>Conduct technical sessions on the development and management of SQL-based applications.</li> <li>Conduct testing and refinement of system components prior its implementation.</li> <li>Conduct mentoring activities for PMU staff in the following areas.               <ol style="list-style-type: none"> <li>Review query performance and optimize code;</li> <li>Write queries used for front-end applications (websites, desktop applications, or cloud apps);</li> <li>Design and code database tables to store the application's data;</li> <li>Data modeling to visualize database structure;</li> </ol> </li> </ol>

- e. Work with application developers to create optimized queries;
- f. Create database triggers for automation, e.g., automatic email notifications;
- g. Create table indexes to improve database performance;
- h. Programme views, stored procedures, and functions;
- i. Assist the M&E specialist with standard database maintenance.

Position: **Geographic Information Systems (GIS) and computer assisted drawing (CAD) specialist**

Location: PMU

Duration: 24 person months over 2 years (12, 12 personmonths)

Reports to: Project Director

Positions Supervised: None

### **QUALIFICATION GUIDE**

#### **Qualifications :**

- (i). Graduate of a bachelor's degree in Geography, Geodetic Engineering, Environmental Science or related discipline
- (ii). Training: Related training in GIS and computer assisted drawing operations
- (iii). Experience: At least 3 years of relevant and progressive work experience in large-scale or development program related GIS operation and maintenance and the use of computer assisted drawing software
- (iv). Others: Proficiency in the use of general computer applications

### **JOB SPECIFICS**

#### **Job Objective:**

- Day-to-day operation and maintenance of the HP-SHIVA PRF geo-database system, generation of maps and other GIS-based thematic data as required by the project.
- Support the DIPH in geo-referencing project irrigation system planning information as required by the department;
- Support the DIPH to purchase and install CAD software and train staff in its application to irrigation system infrastructure drawing.

#### **Job Outputs:**

- Functional and updated geo-database
- Regular and on-demand GIS-based thematic data analysis and maps
- GIS system enhancements and tools
- PMU, DOH and DIPH staff trained on GIS
- DIPH staff trained in the use of CAD software

#### **Primary Tasks:**

- i. Set up the GIS platform for the HP-SHIVA PRF and develop a real time data exchange mechanism from beneficiary communities and supporting DIPH and DOH offices to state level using applicable smartphone apps or software;
- ii. Day-to-day operation and maintenance of the HP-SHIVA PRF geo-database system including consolidation of geo-tagged files;
- iii. Generate regular and on-demand GIS-based thematic data analysis and maps for operations, monitoring, evaluation, reporting, and feedback;
- iv. Take part in enhancing the GIS component required by project and in developing the necessary guidelines, references and tools for GIS operations that may be required under HP-SHIVA PRF;
- v. Support DIPH staff in georeferencing project irrigated areas and associated water catchments for both planning and monitoring purposes;
- vi. Provide technical assistance in training of PMU, DOH and DIPH staff on geo-database management and geo-tagging;
- vii. Conduct training, with focus on climate & disaster risk and vulnerability analysis in GIS environment
- viii. Supports the PMU in analyzing in GIS environment the available data
- ix. Coordinate with other DOH and DIPH GIS platforms for data sharing and development;
- x. Support the DIPH with the purchase and application of a selected CAD software program including the systematic training of key DIPH staff in the use of the software for preparing irrigation system plans and technical drawings;
- xi. Perform other duties that may be assigned by the Project Director.

Position: **Financial management specialist**

Location: PMU

Duration: 24 person months over 2 years (12, 12 personmonths)

Reports to: Project Director

Positions Supervised: PMU/PIU accountants

### **QUALIFICATION GUIDE**

#### **Qualifications :**

- (i). a recognized professional accountancy qualification (e.g., CPA, CA or equivalent) or equivalent in related fields;
- (ii). an overall 10 years of working experience with 5 years of experience in project/program financial management and training/ capacity building; and
- (iii). experience in similar capacity and sound knowledge of ADB procedures/policies and working on externally funded projects/programs shall have added advantage.

### **JOB SPECIFICS**



**Job Objective:**

The objective of the services is to strengthen the Financial Management capacity of the PMU/DOH and DIPH implementing the ADB's assisted Project to ensure:

- all program funds are used for the intended purpose and with due attention to considerations of economy and efficiency; and
- full compliance with ADB's financial management and disbursement requirements as outlined in the relevant sections of Loan/grant agreements, Project Administration Manual, and ADB's loan disbursement handbook, minutes of the loan negotiations, etc.

**Job Outputs:**

- Produce monthly, quarterly and annual consolidated project financial reports

**Primary Tasks:**

- i. Support the PMU/DOH and DIPH in ensuring that separate accounts for the project are duly maintained and that receipts and expenditures are duly segregated by financing source (e.g. ADB and Government funding);
- ii. Support the PMU/DOH and DIPH in improving the FM systems including the following:
  - A. Support the setting-up of the accounting software in the PMU;
  - B. Prepare/modify the Chart of Accounts (CoA) as necessary and automating the financial reporting to the extent possible;
  - C. Contribute to the Development of an FM manual for the value chain financing activities to be implemented under the ensuing loan. The manual should summarize the applicable FM arrangements and cover the flow of funds, accounting, financial reporting and audit arrangements under the related activities; as well as,
  - D. Contribute to the strengthening of the internal audit function for the project activities to be implemented under the ensuing loan including.
- iii. Support the PMU/DOH and DIPH in ensuring that a) all payments are duly prepared, reviewed, authorized, and recorded in the accounting system correctly and in a timely manner, and all expenditure items meet the eligibility criteria as defined in the ADB financing agreement, and are supported by adequate documentation (invoice, contracts, evidence of payments etc..) as outlined in the ADB disbursement handbook;
- iv. Conduct periodic analysis of the execution of the procurement and disbursement projections and provide analysis of the any significant variances between planned vs actual expenditures;
- v. Conduct an analysis of the financial execution of the approved procurement plan and budget, disbursement projections as well as financial vs physical progress. Analyze and document any significant variations;
- vi. Support the PMU/DOH and DIPH in conducting quarterly reconciliation of the project disbursement records and ADB's disbursement data available in the LFMIS to ensure the correctness and completeness of the project records and financial reports/statements. Follow-up on any discrepancies to ensure these are resolved in a prompt manner;

- |       |   |
|-------|---|
| vii.  | Assist the PMU/DOH and DIPH in preparing Withdrawal applications and in collection and filing of all supporting documentation in accordance with the relevant procedures outlined in the ADB loan disbursement handbook;                  |
| viii. | Assist the PMU/DOH and DIPH in preparing financial information and analysis to be included in the quarterly progress reports in an agreed format to be submitted to ADB;  |
| ix.   | Assist the PMU/DOH and DIPH in preparing separate project financial statements annually covering the activities financed under all the funding sources (e.g. ADB and Government funding) in a format agreed with ADB;                     |
| x.    | Support the PMU/DOH and DIPH in ensuring that the project financial statements are audited and that the audit report, the audited consolidated financial statements and the management letter(s) are submitted to ADB in a timely manner; |
| xi.   | Support the PMU/DOH and DIPH in the follow-up of internal and external audit recommendations to further improve the internal controls of the project.   |
| xii.  | Assist the PMU/DOH and DIPH in other tasks as assigned by the PMU director or equivalent.   |

Position: <b>Procurement management specialist</b> Location: PMU Duration: 24 person months over 2 years (12, 12 personmonths) Reports to: Project Director Positions Supervised: PMU procurement staff
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### QUALIFICATION GUIDE

#### Qualifications :

- (v). A university degree or professional qualifications in engineering, finance, public administration or a related field;
- (vi). Demonstrate knowledge of the institutional, technical, commercial, community level aspects of procurement;
- (vii). At least 7 years of cumulative experience working in procurement-related activities for the Asian Development Bank and or other Multilateral Development Banks (MDB)- funded projects (working experience under ADB projects will be an advantage);

### JOB SPECIFICS

#### Job Objective:

The objective of the services is to assist the Project Director of the HP\_SHIVA PRF Project Management Unit in activities related to procurement of goods, works and consultancy services to be implemented according to the ADB Procurement Guidelines.

#### Job Outputs:

- HP-SHIVA PRF Procurement Plan
- Procurement Review and Recommendations

- Produce monthly, quarterly and annual consolidated project financial reports

**Primary Tasks:**

- xii. Ensuring that project procurement procedures are carried out in accordance with the RCDP Procurement Plan and relevant Asian Development Bank Guidelines;
- xiii. Preparing the General Procurement Notice (GPN), Specific Procurement Notices (SPNs), Invitation for Bids (IFBs), Request for Expressions of Interest (REOs) and other solicitation documents whenever required;
- xiv. Preparing and amending the bidding documents as needed;
- xv. Contribute to the preparation of Terms of References (TORs);
- xvi. In case of procurement actions requiring ADB's "No Objection" coordinating the dispatch of procurement document to ADB, monitoring ADB's response time on issuing "No Objections" at different levels of the procurement process and following up accordingly;
- xvii. Monitoring and ensuring timely responses to procurement questions raised by the ADB, for services, following up with the short-listed consultants within 10 days of RFP dispatch, to ensure their participation in the selection exercise;
- xviii. Preparing and updating the Projects' Annual Procurement Plan and Budget as necessary; detailing contract packages (including estimated cost) for goods, consultancy services and non-consulting services the procurement/selection methods and processing times until completion of each procurement activity;
- xix. Monitoring procurement implementation of and update the Procurement Plan whenever it becomes necessary to do so;
- xx. Support the PMU in carrying out procurement of Civil Works, Consultancy Services materials and equipment as required;
- xxi. Help ensure timely receipt of the goods and consultant status reports;
- xxii. Support the PMU in maintaining records of all correspondence, budding documents, evaluation reports and other documents related to the project;
- xxiii. Contribute to preparing the quarterly, 6-monthly and annual progress reports;
- xxiv. Participate in bid/proposal opening sessions, bid and proposal evaluations and ensure that the appropriate Guidelines are followed to arrive at the recommendations for award of contracts;
- xxv. Participate in procurement audits and reviews of the project;
- xxvi. Support the PMU Procurement Team in preparing/updating the project procurement manual as well as related training modules and materials; and
- xxvii. Assist the PMU in dealing with claims, bid challenges and litigations relating to contracts and procurement.

**CS3 Package**  
**Himachal Pradesh Horticulture Development**  
**Strategy and Investment Plan 2023-2030**  
**Terms of Reference**

## Introduction

The Government of Himachal Pradesh (GoHP) proposes to prepare a Horticulture Sector Development Strategy and Investment Plan (HSDSIP), the development of which will be financed through the Asian Development Bank (ADB) financed Himachal Pradesh – Sub-tropical Horticulture, Irrigation and Value Addition (SHIVA) Project: Project Readiness Facility (PRF) Loan. The HSDSIP will be prepared between September 2020 and March 2021. This document presents the objective, scope, terms of reference and implementation arrangements for the HSDSIP preparation.

## Background

**India horticulture production.** With the changing food consumption patterns, India's agriculture landscape is restructuring, with horticulture now a prominent component of the agriculture economy and its fastest growing segment, forming about 30% of India's agricultural GDP and utilizing from 8.5% of the cropped area. Total India horticulture production reached 314.5 million tons in 2018/19, up from 257.3 million MT in 2011/12 and 96.6 million MT in 1991/92 and has exceeded food grain production for the last 7 years. Total area under horticulture crops in 2018/19 was 25.5 million ha, up from 23.2 million ha in 2011/12 and 12.8 million ha in 1991-92. Growing interest in horticulture has been catalysed by changing food consumption patterns (from cereals, primary rice and wheat, to a richer mix, including fruits, vegetables, eggs and meat) and growing incomes. Himachal Pradesh, Maharashtra, Andhra Pradesh, Tamil Nadu, Gujarat, and Uttar Pradesh are the leading fruit producing states in India, producing nearly 60% of the national horticulture output.

**A shifting agriculture environment.** The Government of India (GoI) recognizes the need for certain strategic shifts to enable and facilitate the structural transformation of Indian agriculture, more fully capitalizing on the sector's potential contributions to economic growth and job creation. Four such shifts reflect underlying trends in food supply and demand, including: (i) a shift away from traditional food grain production and towards diversification into the production of higher value agricultural commodities such as fruits, vegetables, and dairy products; (ii) a shift away from emphasizing on-farm production and towards value addition in the post-harvest segments of agriculture value chains; (iii) a shift away from focusing on productivity and towards resilience of agriculture production systems for addressing the effects of climate change; (iv) a shift away from a focus on agricultural production and towards nutrition sensitive agriculture.<sup>1</sup>

**A changing consumption and marketing pattern.** Organized retail, including e-retail, is rapidly growing giving consumers a wider choice of goods, more convenience, and often more competitive prices. The benefits of this trend are expected to extend to the mass of Indian consumers. Second, changes in consumption patterns are driving rapid changes in the production basket, which is diversifying in favor of high value commodities such as fruit, vegetables, livestock and fisheries. This change in consumer tastes and preferences has set the stage for expanding and modernizing handling, storage and distribution networks.<sup>1</sup>

**Himachal Pradesh economy.** Himachal Pradesh (HP) is one of the smaller states in

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<sup>1</sup> Himachal Pradesh Horticulture development Project. Project Appraisal Document. The World Bank

India, being ranked 17th among the country's 29 States and 7 Union Territories in terms of size and 21st in terms of population. More than 50% of the state is under forest, pasture and grassland, with less than 10 % under cultivation. Despite its hilly topography, since the 1990s, HP has outperformed the national average in most socio-economic indicators including Gross State Domestic Product (GSDP) growth rate, per capita income, literacy, life expectancy and poverty reduction. Most notably, poverty has declined from 36.8% to 8.5% between 1993-94 and 2010-11, and male literacy improved from 75.3% to 89.5% and female literacy from 52.1% to 75.8% between 1991 and 2011 — at least 10% higher than the national average respectively. In 2018-19, HP per capita income was ranked 14th among Indian states. In 2015-16 the agricultural and allied sectors contributed less than 15% of the GSDP while the secondary and tertiary sectors contribute 39.7% and 44.86% respectively.

**Horticulture in HP has been responsible for many of the positive outcomes in employment, wages, and in turn, poverty reduction.** Employment in horticulture as a percentage of all agricultural employment in HP increased from 0.9 percent to 28 percent between 1983 and 2009-10. Crop diversification has made a significant impact on income and employment among small and marginal farmers. The expansion of area cultivated with non-food grain crops was a significant factor influencing the growth of rural non-farm employment in the state. Ninety percent of the population of Himachal Pradesh resides in rural areas as of the latest census, and 88 percent are small and marginal farmers. The average operational land holding is less than one hectare. About 70 percent of the state's overall employment is in agriculture and the rural economy. Women are significant contributors in agriculture, horticulture, and livestock/dairying sectors. In horticulture, women continue to provide significant labor and supervisory input to pre-harvest and post-harvest activities. Their access to horticulture technologies and extension services, market infrastructure/information, skill and entrepreneurship development opportunities and decision making structures, However, remains weak.

HP has two distinct horticulture production systems — (i) temperate and sub-temperate horticulture; and (ii) sub-tropical horticulture. Temperate horticulture, which occurs in the high hills and valleys and cold/dry zones is dominated by apple cultivation on 107,686 ha, while sub temperate horticulture, which is predominantly in the mid-hills zone includes peach, plum and apricot, produced on 17,288 ha. Sub-tropical horticulture primarily occurs in the Low Hill and Valley zone, areas near the plains, and includes mango, litchi, guava, loquat, citrus fig, ber, papaya, early varieties of grapes, jack fruit and banana production. While crop diversification is increasing in Himachal Pradesh, a significant increase in fruit and vegetable crop production is mostly concentrated in districts of the mid-hills and high hills and valleys zones, leaving a substantial income gap between temperate and sub-temperate horticulture producers and those farmers producing subtropical crops. Farmers of temperate horticulture earn, on average, \$1,550 per month while horticulture farmers in the subtropical low hills zone and some mid-hills subhumid zones earn, on average only \$116 month or 7.4% of temperate horticultural farmers' income

Subtropical horticulture development in HP faces multiple challenges despite the climate potential. A key bottleneck is limited access to water sources and irrigation services. Nearly 75% of annual rainfall concentrates falls during the three-month monsoon season and this flow is lost as run-off without utilization or conservation. Only about 20% of cultivated area is irrigated and agriculture is largely dependent on

rainfall. There is potential to increase irrigation services to about 60% of the cultivated area. Another key stress factor to crop production comes from monkey and wild animal menace, which affects about 156,000 ha of agriculture land. This menace causes crop losses up to 89% of the normal yield of crops, costing the agriculture and horticulture sector over Rs500 crore annually. Without profitable solutions to the pest menace, farmers are giving up cultivation of fruits, vegetables and maize.

The strategy of GoI and Government of Himachal Pradesh (GoHP) to address the constraints to the rapid and sustainable development of the horticulture sector includes a variety of initiatives. These focus on growth through diversification into high value horticulture production by creating an environment that enables the farming community to acquire the necessary technical knowledge and capacity to capitalize on emerging market opportunities. Infrastructure development, including pest proof fencing, an expanded irrigation area and improved road infrastructure — high transport costs are a major constraint to Indian horticulture production, both domestically and in international markets. Government is also focused on improved horticulture market linkage, particularly through e-commerce. The HP Horticulture Department lists the following development priorities/strategies<sup>2</sup>:

- improvement of productivity of existing horticulture plantations;
- quality improvement of horticulture produce;
- diversification of the horticulture industry;
- modernization of the nursery production programme for the production of virus free certified planting material on suitable rootstock;
- introduction of improved fruit varieties and rootstocks from advanced countries and their multiplication for supply to the farmers;
- new orientation to the planting density in the fruit orchards from the present low-density plantation to medium and high-density plantation, with the objective of obtaining higher productivity of quality fruits per unit area;
- minimum use of pesticides with emphasis on Integrated Pest Management (IPM) and Biological Control of pests and diseases;
- utilization of the information technology for the dissemination of technical know how and marketing information to the fruit growers;
- improvement of water management practices in the orchards through adoption of scientific water harvesting, storage and application practices;
- utilization of high-tech horticulture technologies like protected cultivation of horticulture produce, use of biotechnology, micro irrigation technologies, use of plastics etc. for the improvement of horticulture productivity;
- creation of scientific post-harvest management infrastructure;
- value addition and diversification in processing industry;
- market promotion through branding, advertisement and exports.

**HP Horticulture Sector Development Strategy and Investment Plan (HSDSIP) 2023-2030.** The GoHP proposes to apply part of the HP-SHIVA PRF loan for the development of the HSDSIP 2023-2030, which will guide the overall future

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<sup>2</sup>

<file:///C:/Users/garry/Documents/Work%20Files/ADB%20Himachal%20Pradesh/Background%20reading/Horticulture%20production/HP%20Hort%20strategy.html>

development of the HP horticulture sector and the HP-SHIVA project design in particular. It is proposed that the HSDSIP be prepared over a 6 month period between September 2020 and March 2021. The HSDSIP preparation team input is detailed in Table 1. The schedule of consulting service inputs is indicative, and the successful bidder may, at its discretion, propose a modified service input schedule and skills mix, if needed, to undertake the HSDSIP 2023-2030 preparation. Terms of reference for each specialist are outlined hereunder.

**Table 1. HSDSIP preparation team**

Consultant	Person months
<b>International</b>	
Horticulture development specialist (Team leader)	4.5
Economist	3
Horticulture value chain specialist	3.5
<b>National</b>	
Horticulture specialist	4.5
Horticulture marketing specialist	3.5

### **Consultant Terms of Reference**

The TA consultants will be jointly responsible for the following tasks:

- (i) select the horticulture commodities in which HP has a comparative advantage and potential for developing the respective value chains;
- (ii) undertake a desk review of relevant activities conducted by government or other development partners on the selected horticulture commodity value chains;
- (iii) establish public-private engagement platforms for market-based horticulture value chain strategic planning;
- (iv) conduct value chain analyses for each of the selected horticulture commodities. The value chain assessments will entail: the agronomic production profiles (e.g. horticulture management practices, land ownership and use practices); value chain mapping (key stakeholders, flow of supplies and products, flow of funds and information, etc.); functional analysis of each value chain (profiling of industry structure, adoption of skills, technology and innovation); climate change implications; economic analysis of potential opportunities to add value along the chain; and policy and institutional conditions necessary to create suitable enabling environment for value chain development;
- (v) conduct assessments of demand and market conditions for products within selected value chains including analysis of input and output markets, their structure and dynamics between actors, procurement processes, related standards, existence of monopolies, identification of lead firms, etc.;
- (vi) based on the above tasks, identify constraints and barriers (financial, technology, infrastructure, human resources/skills, marketing, regulatory, policy, institutional) that must be addressed to enable the development of the value chains;
- (vii) recommend public investments required to support the selected value chains. In the case of public infrastructure (soft and hard), recommend arrangements for financing (i.e. public, private, public-private) and mechanisms for sustainable operation and maintenance;
- (viii) support the development of appropriate models for public-private partnerships (PPPs) in agribusiness;



(xi) evaluate the public organization and capacity of supporting government institutions and their staff (production, research, extension, regulatory, policy, etc.) and propose institutional, policy and capacity building reforms with a view to improved public services to the sector and strengthened public-private partnerships; (x) consolidate the outcome of the above tasks and prepare a development strategy for the HP horticulture sector and action and investment plans for increased commercialization of the selected commodities

**Deliverables.** The firm shall submit the following reports: (i) Inception report; (ii) Draft final HSDSIP 2023-2030 report; and (iii) Final HSDSIP 2023-2030 report after incorporating all comments and/or recommendations of the government, horticulture value chain stakeholders and the ADB. All the reports are expected to be in English.

**Maximum Budget and Payment Schedule.** The maximum budget for the HDSIP 2023-2030 assignment is \$290,000. The payment schedule is as follows: (i) 10% after signing the contract; (ii) 15% following the submission of the Inception Report; (iii) 50% following the submission of the draft final HDSIP 2023-2030 report to the government; (iv) 25% after incorporating comments of the government, stakeholders and the ADB;

**Consultant's Qualification.** The minimum requirements for the firm are (i) extensive and proven experience in conducting horticulture or agriculture sector studies and investment plans in various countries; (ii) at least 15 years of experience for the team leader and 10 years of experience for other key staff in similar sector development projects; and (iii) recent and solid experience in work related to agriculture/horticulture development and agriculture/horticulture value chain investment in India

### **Specific scope of work**

#### **Horticulture development specialist (International)**

The Specialist must have at least a Master's degree in horticulture production and at least 15 years of practical experience in the field of horticulture and rural development in the Asia Pacific region, especially related to horticulture enterprise development. Past relevant work experience in India would be considered a significant advantage. The Specialist must also have a proven record of leading teams of international and national consultants; strong skills in coordination, intercultural communication and networking; and excellent skills in spoken and written English.

As Team Leader, the consultant will: (i) prepare a work plan for the overall TA (which would involve scheduling the inputs of all consultants and associated consultations, surveys, studies and workshops); (ii) supervise and coordinate the inputs (i.e. desk reviews and field work) of the other consultants; (iii) supervise updates of the work plan and preparation of progress reports for submission to the DoH; (iv) advise the DoH on technical content of workshops, consultations and other meetings; (v) coordinate the preparation of the HSDSIP 2023-2030. Technical responsibilities of the consultant include:

*Agronomic production profile:* (i) Identify the key horticulture crops in HP that will be the focus of the strategy; (ii) identify the currently dominant agronomic production practices for these horticulture crops; and (iii) specify improved agricultural management practices of soil & water management, pest & pesticide management, practices of land clearing and land use change, tree nursery practices (if managed by farmers as opposed to upstream actors) and use of non-household labour. The consultant is required to pay particular attention to the horticulture varieties used as

well as to varieties mostly required by the output markets, and to the farming techniques required to achieve market standards.

*Climate change analysis of horticulture production.* Analysis of climate change implications on HP horticulture production, highlighting potential areas of climate change impacts on the operations of the targeted horticulture crops, as well as recommendation of options for climate smart horticulture adoption as opposed to conventional horticulture currently practiced by the horticulture producers. The analysis at farm level may be guided by the following elements: Adaptation (capturing as many as possible of the following elements): - a description of expected changes in average day and night temperatures, total water availability and distribution, CO<sub>2</sub> concentration - estimation of the negative yield effect from higher day temperatures through lowering photosynthesis and higher night temperatures through increased respiration - estimated yield effect from differential water availability - a detailed discussion of these climate change impacts on the reproductive stage (flowering: when pollination & fertilization occur) - the needed changes in fertilization and water supply to translate higher CO<sub>2</sub> levels in increased vegetative growth and yield benefits - priority areas and expected improvements from targeted breeding (heat, drought tolerance) - the impact of temperature increases on pest and disease prevalence. In this context and where relevant the issues of nutrient loss, shallow rooting, drought injury, limited maturation, fruit shed, and plant death should be investigated. Mitigation: - identification of main emission sources and main mitigation potentials (land use change, fertilization, soil management, biomass growth, etc).

### **Economist (International)**

The international Agricultural Economist must have at least a Master's degree in Agricultural Economics, Agricultural Development, or Development Economics with a specialization in Agriculture and at least 10 years of practical experience in the field of agriculture and rural development in the Asia Pacific region, especially related to agricultural enterprise and value chain development. Past relevant work experience in India would be considered a significant advantage.

The Agricultural Economist (international) consultant will support the overall scope of work outlined above. In particular, the consultant will: (i) prepare an economic analysis of the specific agribusiness related interventions along the targeted value chains, i.e., the value added creation and distribution across key economic agents at specific stages of the value chain; and (ii) assess the socio-economic context of the producer profile, specifying the costs of production, the farm gate price and income of average production household whose main crop is a target crop. The economic analysis will focus on the economic viability for key private economic agents (i.e. cost-benefit analysis based on market prices of revenues, costs and margins) willing to engage in specific interventions within the value chain. It will also focus on the economic viability to the State (i.e. cost and benefits to the State based on social prices) from investing in the value chains. Based on the economic analyses, the consultant will make recommendations on: (i) the macro-economic rationale for prioritizing horticulture value chains; (ii) pricing structures to incentivize private agents to engage in value chains; (iii) terms and conditions for public-private collaboration engagements at various stages of the value chains including the construction and operation of value chain infrastructure. The consultant will also support the rest of the TA team with the market and demand assessments associated with each value chain and other economic assessment related to promoting a value chain approach.

### **Horticulture value chain specialist (International)**

The consultant must have at least a Master's Degree in Agricultural Economics, Agricultural Development, or Development Economics with a specialization in horticulture and at least 10 years of practical experience in the field of horticulture value chain development in Asia. The consultant must have experience with value chain analysis (i.e. have supported at least five value chain assessments); have strong knowledge of private sector operations in agribusiness; strong skills in coordination, strong communication and networking capacities; and excellent skills in spoken and written English. Past relevant work experience in India would be considered a significant advantage. The consultant will be responsible to:

#### **Product and market analysis.**

- *Demand for value chain outputs:* investigate the current and potential demand of the key HP horticulture products, their various market destinations and related price trends so as to allow analysts to identify constraints, barriers and opportunities. Specify past price trends and price volatility and present future price outlook at the national and global levels, where applicable (making use of internationally recognized price outlooks, as well as other sources);
- Give a short characterization of the position of HP horticulture products in the India horticulture market
- Describe the major existing national horticulture product quality standards and

specify how HP horticulture products meet those standards. Describe the most important constraints in front of quality improvements to meet national standards.

- Describe and evaluate the feasibility of commercialization and market linkages needed for the expansion of targeted horticulture products into national and (where relevant) international markets. Give an assessment of the feasibility of participating in such higher value market segments of the chain. Also assess the availability of major certification schemes in HP for the target crops
- Identify the main actors and other stakeholders (supporters and influencer) and how are they linked and interact in the value chain; assessing the flow of products, information and financial resources along the value chains – both descriptive and as a value chain map.
- Profile of the industry structure, skills and value addition opportunities and technology by identifying, describing and quantifying in physical terms the sequence of operations concerning commodity production, processing, marketing and final consumption and related agents carrying them out. Describing the factors affecting the value chain actors.
- Examine the input and output market and their structure. Procurement processes, accessibility to and availability of varieties required as well as related standards and information. Identification of final buyer for output market, type of contractual arrangements and transaction costs involved.
- Analyse the degree of competitiveness, including the existence of monopolies, monopsonies, oligopolies, market share and market segmentation for both input and output markets; and identify potential lead firms for each value chain.

### **Policy environment & institutional analysis**

- Identify and appraise the set of interactions taking place among agents and the formal and/or informal rules governing them.
- Detail services provided to producers by government services and service conditions provided to producers by input providers, traders, banking institutions, commercial extension providers etc.
- Detail the degree of organization of producers and the constitution and services provided by producer organizations

**Horticulture specialist (national).** The consultant should have at least a bachelor's degree in horticulture production and 7 years general experience of in horticulture development, familiarity with high-density horticulture production in India at national and sub-national levels and an ability to develop and maintain close association with government agencies and communities.

The consultant would assist the international horticulture specialist through (i) the assembly of a detailed statistical database on horticulture production in HP; (ii) the identification of key horticulture crops by location with potential for development under the strategy; (iii) assessing technology gaps in horticulture production in HP and the means for their redress; (iv) assessing the resourcing and outputs of horticulture research and extension in HP, identifying gaps and the means for their redress; (v) evaluating farmer horticulture producer associations and their organization, scale and market linkages; and (vi) evaluating the regulatory environment for horticulture production and marketing in HP, identifying regulatory gaps and opportunities for

regulatory streamlining to improve horticulture marketing and farmers' share of retail price.

**Horticulture marketing specialist (national).** The consultant should have at least a bachelor's degree in horticulture production and 7 years general experience of in horticulture marketing, familiarity with horticulture value chains in India supplying domestic and international markets, and an ability to develop and maintain close association with government agencies and communities.

The consultant would assist the international value specialist through: (i) preparing a detailed description of marketing systems for the key horticulture crops produced in HP; (ii) identifying lead companies engaged in horticulture value addition and marketing in HP; (iii) detailing horticulture production input markets in HP and, through discussion with lead suppliers, identifying constraints to their effective operation; (iv) describe the major existing national horticulture product quality standards and specifying how HP horticulture products meet those standards; (v) through discussion with horticulture producers and lead firms, identify opportunities for potential international markets for HP horticulture products and associated constraints to international market entry; and (vi) in partnership with the national horticulture consultant, evaluating farmer horticulture producer associations and their organization, scale and market linkages.

### **Suggested methodology**

**Desk review** The desk research includes research into the supply and demand side of horticulture products in India and India's horticulture export markets. The consultant team will collect all relevant studies, materials, and statistics already produced by relevant government agencies and other donors, NGOs and/or research institutes in the recent past, and detail the outcomes of these studies, as a starting point to map the targeted horticulture value chains and to reveal the main constraints and opportunities.

**Field work** - data collection Primary data collection in the field is undertaken by the consultant team who are expected to conduct the fieldwork to collect missing data, assess the specific situation and engage with potential stakeholders and key informants for the collection of their views. The fieldwork comprises:

- Identification of key production areas and interviews with lead farmers
- Identification of other key chain actors; interviews with them where possible;
- Interviews with the target companies (value addition/lead firms); assessing demand for value chain outputs and what the constraints in their exporting business are;
- Interviews with other chain stakeholders such as input providers such as state agencies, financial institutions, universities, consulting and donor organisations;
- Conduct economic analysis of the selected value chain and analysis (diagnose) potential added values;
- Field survey to quantify/collect statistics on number of chain actors, prices, current exports, employment, market trends, sustainability standards etc.;
- Technical consultation workshops with value chain stakeholders, including lead farmers, to validate research findings.

**Data processing and reporting** Field information and data will be analysed by the

consultant team in order to produce first draft reports for the key identified value chains. A workshop will be organized by DoH where the consultant team will present their findings and proposed strategies and action plans for supporting in upgrading the value chains for comments from invited participants including representatives from value chain stakeholders, research institutions, farmer producer organizations and DoH. The final report will be produced taking into account the feedback from the consultation workshop.

## **CS6 Package**

### **DIPH Capacity Building Consultant ToRs**

1. The Government of Himachal Pradesh intends to apply the proceeds of an Asian Development Bank loan for the implementation of the Himachal Pradesh Subtropical Horticulture, Irrigation and Value Addition Project (HP-SHIVA). The overall HP-SHIVA project, comprising a Project Readiness Facility ((PRF) US\$10 million over two years) and the ensuing loan, aims to increase the income of at least 25,000 farm households in seven districts (Bilaspur, Hamirpur, Kangra, Mandi, Solan, Sirmour and Una) of subtropical areas of Himachal Pradesh. In the long-term, the HP-SHIVA project will contribute to (i) increased income of rural households in Himachal Pradesh; and (ii) strengthened climate resilience in Himachal Pradesh. The HP-SHIVA project will expand irrigation to farmers, increase subtropical horticulture production and its climate resilience, and raise the profitability and farm gate price of subtropical horticulture production through value chain development of targeted commodities.
2. Project Readiness Facility (PRF) loan will pilot the development of drip-irrigated high-density horticulture production at 17 locations in 4 districts (Bilaspur, Hamirpur, Kangra, Mandi) and 13 blocks incorporating 168 ha of irrigated land across 16 irrigated areas and involving 480 male and female beneficiary landowning households.
3. The PRF will have the following four outputs:
  - (i) Output 1: Irrigation infrastructure development and farmer management systems established. This output will be managed by DIPH. Output 1 will (a) construct or rehabilitate 16 irrigation schemes introducing innovative technologies for water extraction, distribution and storage, and enhanced climate and disaster resilience (PRF pilot); (b) establish and capacitate WUAs on the constructed irrigation schemes with women's participation and gender equitable leadership; and (c) finalize the draft WUA act to be submitted for the HP legislative assembly's enactment.
  - (ii) Output 2: Subtropical horticulture production technology and marketing systems demonstrated. This output will be managed by DOH. Output 2 will: (a) develop 17 subtropical horticulture plots covering 168 hectares, engaging approximately 600 male and female farmers for irrigated high- and ultra-high density production of citrus, guava, litchi and pomegranate (PRF pilot); (b) fence all horticulture plots to protect from animal predation (PRF pilot); (c) form CHPMA in the PRF areas and build their capacities for business/marketing; and (d) facilitate the development of CHPMA investment plans for subtropical horticulture value addition and market development.
  - (iii) Output 3: Enabling environment, tools and capacity for promoting irrigated subtropical horticulture provided. This output focuses on developing capacity building tools and creating an enabling environment for the implementation of the ensuing project. Specifically, the project will: (a) support DOH to prepare the Himachal Pradesh Horticulture Sector Development Strategy and Investment Plan 2023-2030; (b) provide technical training and experimental study tours, as well as investment project management including safeguards, procurement, gender, financial management and institutional strengthening for DOH and DIPH staff; (c) train CHPMA members on orchard management through preparing the packages of practice for key subtropical horticulture crops and providing on-site training; (d) provide technical support to subtropical horticulture nurseries; and (e) establish scientific and project monitoring system in the Project Management Unit (PMU).

- (v) Output 4: Ensuing investment project and its implementation readiness prepared. This output will support DOH and DIPH to prepare the feasibility studies, detailed engineering design and surveys, due diligence assessment, safeguards preparation work and bid documents for the ensuing loan, supported by PRF consultants. Possible public-private partnership pathways will be explored in collaboration with the Private Sector Operations Department as part of the ensuing loan preparation.

4. The GOPH wishes to apply a portion of the loan recruit an international irrigation systems design and management specialist, an international hydrology and climate change specialist, and a national natural resource management and climate change specialist to build DIPH capacity to plan and design climate and disaster resilient irrigation infrastructure under the HP-SHIVA project. The terms of reference for these tasks are detailed below.

### **Climate Resilient Irrigation Systems Design and management Specialist**

Position: Irrigation Engineer Location: Project Management Unit (PMU) Category : International Consultant Period of Engagement : 5 person months over 2 years (3, 2 person months). Reports to: PMU Project Director (PD) Positions Supervised: None.
<b>QUALIFICATION GUIDE</b>
<b>Qualifications</b> <ul style="list-style-type: none"> <li>• Minimum general experience of 10 years in irrigation systems design;</li> <li>• At least a bachelor's degree in civil engineering;</li> <li>• Significant water user association establishment experience;</li> <li>• Familiarity with irrigation and water management issues in India at national and sub-national levels;</li> <li>• Ability to develop and maintain close association with government agencies and communities;</li> <li>• Strong analytical, communication, documentation and presentation skills with experience in facilitating and chairing meetings with multiple stakeholder groups;</li> <li>• Good organizational and planning skills and an ability to adhere to deadlines;</li> <li>• Excellent writing skills; fluency in written and spoken English; and</li> <li>• Previous experience with the ADB or World Bank would be a distinct asset.</li> </ul>
<b>JOB PARTICULARS</b>
<b>Job Objective:</b> The Irrigation Engineer will support the Irrigation and Public Health Department (DIPH) in the design of planned HP-SHIVA-financed irrigation systems and implementation of Project Readiness Financing Facility (PRF) investments, with a view to increasing innovation in systems design and the climate resilience of the resulting infrastructure.



<p><b>Job Outputs:</b></p> <ul style="list-style-type: none"> <li>• Quality assurance of all DIPH HP-SHIVA irrigation infrastructure design;</li> <li>• DIPH capacity in innovative, climate resilient irrigation systems design strengthened;</li> <li>• DIPH has capacity to support the formation of water user groups, associations and federations;</li> <li>• DIPH has approved contracts to the value of 40% of the planned irrigation infrastructure development by loan negotiation.</li> </ul>
<p><b>Primary Tasks:</b></p> <ol style="list-style-type: none"> <li>Review of DIPH and DoH proposed infrastructure designs or design changes recommended by the ADB TA team.</li> <li>Review progress of and provide technical guidance on the construction of the PRF-financed irrigation infrastructure and advise on subsequent water management performance across the various systems designs.</li> <li>Develop, in partnership with DIPH, a performance monitoring system for PRF irrigation infrastructure construction and operation.</li> <li>Support the development of the DIPH WUA training team (State, Sub-district, Block and Facilitator levels) and WUA manual(s), the design and implementation of PRF WUA development program, and the monitoring of WUA performance.</li> <li>Perform other tasks that may be assigned by the PD and attend to other priority irrigation systems development issues under the Project that may be occur during the engagement period.</li> <li>(ix) With other team members, prepare a detailed training manual and supporting training tools on climate resilient irrigation system design and train DIPH trainers in its content and application.</li> </ol>

### Hydrology and Climate Change Specialist

<p>Position: Senior Hydrologist/ Climate Change Specialist  Location: Project Management Unit (PMU)  Category : International Consultant  Period of Engagement : 5 person months over 2 years (3,2 person months)  Reports to: PMU Project Director (PD)  Positions Supervised: National Hydrologist.</p>
<p><b>QUALIFICATION GUIDE</b></p>
<p><b>Qualifications</b></p> <ul style="list-style-type: none"> <li>• Minimum general experience of 10 years in hydrology and climate change assessments;</li> <li>• An MSc in Hydrology or closely related relevant qualification;</li> <li>• Significant experience in assessing climate change aspects of hydrology and water resources;</li> </ul>

<ul style="list-style-type: none"> <li>• Familiarity with hydrology and climate change issues in India at national and sub-national levels would be an asset;</li> <li>• Ability to develop and maintain close association with government agencies related to hydrology, climate change and water related environmental disasters;</li> <li>• Good organizational and planning skills and an ability to adhere to deadlines;</li> <li>• Excellent writing skills; fluency in written and spoken English; and</li> <li>• Previous experience with the ADB or World Bank would be a distinct asset.</li> </ul>
<b>JOB PARTICULARS</b>
<p><b>Job Objective:</b></p> <p>The Hydrologist / Climate Change Specialist will support the Department of Irrigation and Public Health (DIPH) in the hydrological related design aspects of planned Project Readiness Financing Facility (PRF) investments in irrigation systems design and implementation, with a view to increasing climate resilience of the resulting infrastructure.</p>
<p><b>Job Outputs:</b></p> <ul style="list-style-type: none"> <li>• Hydrology and climate change technical report that includes hydrological design parameters for irrigation supply, flood design and changes to water demand due to climate changes;</li> <li>• Assessment Report on the subproject catchment areas, erosion risk and sedimentation impacts on the proposed subprojects;</li> <li>• Support to the Irrigation Engineer and DIPH in their capacity in innovative, climate resilient irrigation systems design strengthened.</li> </ul>
<p><b>Primary Tasks:</b></p> <ul style="list-style-type: none"> <li>(i) Collect relevant hydrological, catchment and climate data from the hydrological data collecting agencies including the DIPH Hydrological unit.</li> <li>(ii) Support the DIPH Hydrological unit in receiving, evaluating and analysing hydrological data for supporting irrigation development at the subproject sites.</li> <li>(iii) Carry out hydrological assessments comprising studies of catchment areas and landuse including erosion and landslide risk in the determination of monthly reliable flows, sediment loads, and flood design criteria using both standard Indian methodologies and internationally accepted systems such as USBR's HEC-HMS.</li> <li>(iv) Support the Irrigation Engineer in assessing evapotranspiration rates and determination of irrigation demands for the proposed subprojects.</li> <li>(v) Carry out climate change studies drawing on the experience of the ADB's<sup>3</sup> climate change impacts on Himachal Pradesh and the World Bank's Climate Change Knowledge Portal<sup>4</sup> to assess probable climate change impacts on scheme design criteria including changes in flow reliability, flood design discharges, the effect of increases in evapotranspiration on irrigation demands and water storage needs to meet demands for a planning horizon of 30 years.</li> </ul>

<sup>3</sup> Climate change adaptation in Himachal Pradesh: Sustainable strategies for water resources. ADB, 2010.

<sup>4</sup> <http://sdwebx.worldbank.org/climateportal/>

- |        |   |
|--------|---|
| (vi)   | Prepare ToR for the procurement and installation of automatic water level recorders and flow and sediment monitoring gauges with telemetric equipment at the proposed subproject intake locations where needed. |
| (vii)  | Prepre ToR for the instllation of rainfall and climte stations to intensify the existing network of stations where needed.  |
| (viii) | Prepare a draft hydrology and climate change report during the first 3 months of the Project and a Final Report drawing on lessons learnt from the PRF program in readiness for the Loan Project.               |
| (ix)   | With other team members, prepare a detailed training manual and supporting training tools on climate resilient irrigation system design and train DIPH trainers in its conent and application.                  |

### Natural Resource Management and Climate Change Specialist

Position: Environment, Natural Resources Management, and Climate Change Specialist

Location: Project Management Unit (PMU)

Category : National Consultant

Period of Engagement : 12 person months over 2 years (6, 6 person months)

Reports to: PMU Project Director (PD)

Positions Supervised: None.

#### QUALIFICATION GUIDE

##### Qualifications

- Minimum 15 years of experience in environmental and natural resources management for agriculture and rural development (ARD) programs;
- Demonstrated successful experience in designing processes and programs for mainstreaming environmental and natural resources management into ARD investment projects and programs;
- An MSc degree in a relevant discipline and at least 5 years' experience leading multi-disciplinary teams or a BSc in a relevant discipline with at least 8 years of experience;
- Significant experience with smallholder "climate smart agriculture", watershed development, community-based natural resources management, and provision of farmer training and extension services within the Indian context;
- Familiarity with watershed and water management, and climate change issues in India at national and sub-national levels;
- Ability to develop and maintain close association with government agencies and communities.
- Strong analytical, communication, documentation and presentation skills with experience in facilitating and chairing meetings with multiple stakeholder groups;
- Good organizational and planning skills and an ability to adhere to deadlines;
- Excellent writing skills; fluency in written and spoken English and Hindi;

- Previous experience with the ADB or World Bank desirable.

## PARTICULARS

### Objective:

The Environment, Natural Resources Management, and Climate Change Specialist will support the HP-SHIVA Project Management Unit (PMU) and work with the Departments of Horticulture (DoH) and Irrigation and Public Health Department (DIPH) in the design, mainstreaming and implementation of the environmental & natural resources management and climate change resilience/adaptation aspects of the planned HP-SHIVA Horticulture Pilot Project, to be financed by the ADB's Project Readiness Financing Facility (PRF). The consultant will be responsible to guide the PMU in: (i) ensuring that concerns and needs for environmental sustainability, climate resilience, and the application of good agricultural and natural resources practices are incorporated in design and implementation; and (ii) that experiential learning and good practices are captured and systematized for inclusion in the subsequent HPSHIVA loan project.

### Deliverables:

- Assessment of current planning and design practices and procedures of DIPH and DoH as regards integration of concerns and good practices for:
  - sustainable water resources management, in collaboration with the Hydrologist/Climate Change Specialist;
  - sustainable land management & agroecosystem conservation<sup>5</sup>;
  - climate change resilience and adaptation, including disaster risk management and vulnerability reduction; weather risk management, and climate smart practices; and
  - compliance with relevant national and state environmental laws and regulations.
- Assessment of DoH's Packages of Practice (POPs) for target horticultural crops as regards integration of concerns and good practices for: natural disaster risk management; climate resilience (crop/cultivar & soil/site matching, soil & moisture conservation, soil & soil fertility management, pest & disease management, others); environmental/sustainable land management (IPM, safe use & handling of pesticides, internalization of good watershed management practices to avoid/mitigate negative, off-site impacts, others);
- Assessment of the effectiveness of DoH's and DIPH's extension and farmer/Water User Association (WUA) training, and of experience/good practices in India for alternative modalities and delivery mechanisms (e.g., Farmer Field Schools, lead farmers, cross-visits, private service providers, enterprise led extension, others);
- Development of environmental impact assessment and environmental scoping framework for proposed PRF interventions, including aspects of consultation with affected persons and local participation within assessments;
- Review and assessment of environmental scoping of 16 proposed PRF irrigation interventions;

<sup>5</sup> "Agroecosystem conservation" refers to maintenance of landscape elements that provide, inter alia, habitat and refugia for beneficial insects, insectivorous birds, and other beneficial fauna; hydrologic services; and locally important medicinal and/or wild food crops.

- Development of a PRF Environmental Management Plan (EMP), including institutional & implementation arrangements, and identification of incremental budgetary resources required for its implementation overall and on a per scheme basis<sup>6</sup>;
- Development and implementation framework of a capacity building, technical assistance and TOT to support the implementation of the PRF's EMP by DoH, DIPH, WUAs, and farmers;
- Provide inputs for the inclusion of necessary environmental & natural resources management and climate change (ENRM/CC) aspects necessary adjustments in the implementation and improving practices, and good practices for participation of key, including backwards linkages to institutional actors responsible for making local stakeholders in M&E and learning.

### **Primary Tasks:**

- i. In partnership with the PMU and DoH and DIPH, develop a detailed work program for the development and delivery of the products for which the consultant is responsible, and within which the roles and responsibilities of the DoH and DIPH are agreed and detailed.
- ii. Collaborate with the Hydrologist/Climate Change Specialist on the assessment of water resources management and climate change resilience in irrigation works and systems; and as relevant, (ii) for the environmental scoping of the irrigation development.
- iii. Review progress of and provide technical guidance on the implementation of the EMP, including support for the supervision of staff or consultants carrying environmental scoping (or EIAs, where required); review and comment on draft reports; advise on design and implementation performance of ENRM/CC elements across the 16 pilot schemes (17 irrigation communities).
- iv. Identify innovative and best practice options and alternatives for testing and inclusion in the PRF for natural disaster mitigation; soil & moisture conservation, soil & soil fertility management, IPM, and community-based watershed management practices.
- v. Support the development of the capacity building, technical assistance and training-of-trainer (TOT) activities for implementation of the PRF's EMP by DoH, DIPH, WUAs, and farmers.
- vi. Monitor performance and effectiveness of the capacity building efforts for inclusion and implementation of ENRM/CC aspects.
- vii. Support the development and implementation of the PRF's M&E process and learning system for ENRM/CC aspects.
- viii. Monitor the performance and effectiveness of the of the PRF's M&E process and learning system for ENRM/CC aspects.
- ix. Perform other tasks that may be assigned by the PD and attend to other priority ENRM/CC issues under the Project that may be occur during the implementation period.
- x. With other team members, prepare a detailed training manual and supporting training tools on climate resilient irrigation system design and train DIPH trainers in its content and

<sup>6</sup> For the World Bank-financed Himachal Pradesh Horticulture Development Project, both a detailed Environmental and Social Management Framework (ESMF) and a Project Implementation Plan that integrates the ESMF have been developed. The consultant will review these and the experience with their implementation, and to the extent possible, update and adapt these for purposes of the PRF's EMP.

application.

## **CS5 Package**

### **DOH Capacity Building Consultant ToRs**

1. The Government of Himachal Pradesh intends to apply the proceeds of an Asian Development Bank loan for the implementation of the Himachal Pradesh Subtropical Horticulture, Irrigation and Value Addition Project (HP-SHIVA) The overall HP-SHIVA project, comprising a Project Readiness Facility ((PRF) US\$10 million over two years) and the ensuing loan, aims to increase the income of at least 25,000 farm households in seven districts (Bilaspur, Hamirpur, Kangra, Mandi, Solan, Sirmour and Una) of subtropical areas of Himachal Pradesh. In the long-term, the HP-SHIVA project will contribute to (i) increased income of rural households in Himachal Pradesh; and (ii) strengthened climate resilience in Himachal Pradesh. The HP-SHIVA project will expand irrigation to farmers, increase subtropical horticulture production and its climate resilience, and raise the profitability and farm gate price of subtropical horticulture production through value chain development of targeted commodities.
2. Project Readiness Facility (PRF) loan will pilot the development of drip-irrigated high-density horticulture production at 17 locations in 4 districts (Bilaspur, Hamirpur, Kangra, Mandi) and 13 blocks incorporating 168 ha of irrigated land across 16 irrigated areas and involving 480 male and female beneficiary landowning households.
3. The PRF will have the following four outputs:
  - (i) Output 1: Irrigation infrastructure development and farmer management systems established. This output will be management by DIPH. Output 1 will (a) construct or rehabilitate 16 irrigation schemes introducing innovative technologies for water extraction, distribution and storage, and enhanced climate and disaster resilience (PRF pilot); (b) establish and capacitate WUAs on the constructed irrigation schemes with women's participation and gender equitable leadership; and (c) finalize the draft WUA act to be submitted for the HP legislative assembly's enactment.
  - (ii) Output 2: Subtropical horticulture production technology and marketing systems demonstrated. This output will be managed by DOH. Output 2 will: (a) develop 17 subtropical horticulture plots covering 168 hectares, engaging approximately 600 male and female farmers for irrigated high- and ultra-high density production of citrus, guava, litchi and pomegranate (PRF pilot); (b) fence all horticulture plots to protect from animal predation (PRF pilot); (c) form CHPMA in the PRF areas and build their capacities for business/marketing; and (d) facilitate the development of CHPMA investment plans for subtropical horticulture value addition and market development.
  - (iii) Output 3: Enabling environment, tools and capacity for promoting irrigated subtropical horticulture provided. This output focuses on developing capacity building tools and creating an enabling environment for the implementation of the ensuing project. Specifically, the project will: (a) support DOH to prepare the Himachal Pradesh Horticulture Sector Development Strategy and Investment Plan 2023-2030; (b) provide technical training and experimental study tours, as well as investment project management including safeguards, procurement, gender, financial management and institutional strengthening for DOH and DIPH staff; (c) train CHPMA members on orchard management through preparing the packages of practice for key subtropical horticulture crops and providing on-site training; (d) provide technical support to subtropical horticulture nurseries; and (e) establish scientific and project monitoring system in the Project Management Unit (PMU).
  - (iv) Output 4: Ensuing investment project and its implementation readiness prepared. This output will support DOH and DIPH to prepare the feasibility studies, detailed engineering design and surveys, due diligence assessment, safeguards preparation work and bid documents for the ensuing loan, supported by PRF consultants. Possible public-private

partnership pathways will be explored in collaboration with the Private Sector Operations Department as part of the ensuing loan preparation.

4. The GOPH plans to apply part of this loan to secure the services of a subtropical horticulture production specialist with a view to preparing Packages of Practice (PoPs) for up to eight subtropical horticulture crops likely to be produced under the HP-SHIVA main project and to developing a subtropical horticulture training program, built around the agreed PoPs.

<p>Position: <b>Horticulture Technology Capacity Building Specialist (International)</b></p> <p>Location: PMU</p> <p>Duration: 3 person months (2,1 person months)</p> <p>Reports to: PMU Director</p> <p>Positions Supervised: None</p>
<b>QUALIFICATION GUIDE</b>
<p><b>Qualifications:</b></p> <ul style="list-style-type: none"> <li>(vi). Master's degree in horticulture production and,.</li> <li>(vii). Must have at least 10 years of practical experience in the field of sub-tropical horticulture development in the Asia Pacific region;</li> <li>(viii). Experience in the development of Packages of Practice (PoPs) for sub-tropical crops essential;</li> <li>(ix). Experience in the preparation and implementation of horticulture capacity building programs required;</li> <li>(x). Past relevant work experience in India would be considered a significant advantage.</li> </ul>
<b>JOB SPECIFICS</b>
<p><b>Job Objective:</b></p> <p>To support the DOH in developing a staff and farmer capacity building program in the efficient and sustainable production of selected sub-tropical horticulture crops in Himachal Pradesh (HP) State.</p>
<p><b>Job Outputs:</b></p> <ul style="list-style-type: none"> <li>• PoPs for the key sub-tropical horticulture crops in HP;</li> <li>• A DOH sub-tropical horticulture technology capacity building strategy;</li> <li>• Core training material for implementing a sub-tropical horticulture training program in Himachal Pradesh State (building off PoPs information)</li> </ul>
<p><b>Primary Tasks:</b></p> <ul style="list-style-type: none"> <li>ii. Assist PMU-recruited national horticulture specialists to prepare detailed PoPs for priority sub-tropical horticulture crops in HP;</li> <li>iii. Assess horticulture development capacities of DOH staff at state, district and lower levels and develop a structured capacity program to address knowledge gaps, including those related to climate change adaptation and mitigation;</li> <li>iv. On the basis of the aforementioned knowledge gap analysis, design capacity building programs for DOH staff at state, district and lower levels;</li> </ul>



- v. Develop relevant training material for the agreed capacity building program based on the final PoPs;
- vi. With the support of the national PoP specialists, conduct a ten-day Training of Trainers course for DOH horticulture specialists;
- vii. Supervising a district level DOH staff horticulture production training program implemented by the Trained Trainers.

## **CS7 Package**

### **Water User Association Establishment and Capacity Building**

1. The Government of Himachal Pradesh intends to apply the proceeds of an Asian Development Bank loan for the implementation of the Himachal Pradesh Subtropical Horticulture, Irrigation and Value Addition Project (HP-SHIVA) The overall HP-SHIVA project, comprising a Project Readiness Facility ((PRF) US\$10 million over two years) and the ensuing loan, aims to increase the income of at least 25,000 farm households in seven districts (Bilaspur, Hamirpur, Kangra, Mandi, Solan, Sirmour and Una) of subtropical areas of Himachal Pradesh. In the long-term, the HP-SHIVA project will contribute to (i) increased income of rural households in Himachal Pradesh; and (ii) strengthened climate resilience in Himachal Pradesh. The HP-SHIVA project will expand irrigation to farmers, increase subtropical horticulture production and its climate resilience, and raise the profitability and farm gate price of subtropical horticulture production through value chain development of targeted commodities.
2. Project Readiness Facility (PRF) loan will pilot the development of drip-irrigated high-density horticulture production at 17 locations in 4 districts (Bilaspur, Hamirpur, Kangra, Mandi) and 13 blocks incorporating 168 ha of irrigated land across 16 irrigated areas and involving 480 male and female beneficiary landowning households.
3. The PRF will have the following four outputs:
  - (i) Output 1: Irrigation infrastructure development and farmer management systems established. This output will be management by DIPH. Output 1 will (a) construct or rehabilitate 16 irrigation schemes introducing innovative technologies for water extraction, distribution and storage, and enhanced climate and disaster resilience (PRF pilot); (b) establish and capacitate WUAs on the constructed irrigation schemes with women's participation and gender equitable leadership; and (c) finalize the draft WUA act to be submitted for the HP legislative assembly's enactment.
  - (ii) Output 2: Subtropical horticulture production technology and marketing systems demonstrated. This output will be managed by DOH. Output 2 will: (a) develop 17 subtropical horticulture plots covering 168 hectares, engaging approximately 600 male and female farmers for irrigated high- and ultra-high density production of citrus, guava, litchi and pomegranate (PRF pilot); (b) fence all horticulture plots to protect from animal predation (PRF pilot); (c) form CHPMA in the PRF areas and build their capacities for business/marketing; and (d) facilitate the development of CHPMA investment plans for subtropical horticulture value addition and market development.
  - (iii) Output 3: Enabling environment, tools and capacity for promoting irrigated subtropical horticulture provided. This output focuses on developing capacity building tools and creating an enabling environment for the implementation of the ensuing project. Specifically, the project will: (a) support DOH to prepare the Himachal Pradesh Horticulture Sector Development Strategy and Investment Plan 2023-2030; (b) provide technical training and experimental study tours, as well as investment project management including safeguards, procurement, gender, financial management and institutional strengthening for DOH and DIPH staff; (c) train CHPMA members on orchard management through preparing the

packages of practice for key subtropical horticulture crops and providing on-site training; (d) provide technical support to subtropical horticulture nurseries; and (e) establish scientific and project monitoring system in the Project Management Unit (PMU).

(iv) Output 4: Ensuing investment project and its implementation readiness prepared. This output will support DOH and DIPH to prepare the feasibility studies, detailed engineering design and surveys, due diligence assessment, safeguards preparation work and bid documents for the ensuing loan, supported by PRF consultants. Possible public-private partnership pathways will be explored in collaboration with the Private Sector Operations Department as part of the ensuing loan preparation.

4. The GOHP proposes to use a portion of the loan to recruit a firm or non-government organization to assist the DIPH to establish sustainable water user associations (WUAs) covering the total irrigable area of the 16 irrigation schemes being developed under the HP-SHIVA PRF. The contract will also involve the development of WUAs on the approximately 4,000 ha of irrigable area (about 40 irrigation schemes) to be identified and designed under the PRF and constructed during the first phase of the HP-SHIVA project.

Position: Water User Association (WU A) establishment and capacity building  
**Team Leader**

Location: Project Management Unit (PMU)

Category : National consultant company or NGO

Period of Engagement : 24 person months over 2 years.

Reports to: PMU Project Director (PD)

Positions Supervised: block level WUA facilitators.

#### **QUALIFICATION GUIDE**

##### **Qualifications (Team Leader)**

- Minimum general experience of 10 years in establishing and training WUAs;
- At least a bachelor's degree in water management or related subject;
- Experience in the transfer of irrigation system maintenance and/or management to WUAs;
- Familiarity with irrigation water management issues in India at national and sub-national levels and practical experience of participatory water management at field level;
- Ability to develop and maintain close association with government agencies and communities;
- Strong analytical, communication, documentation and presentation skills with experience in facilitating and chairing meetings with multiple stakeholder groups including farmers;
- Good organizational and planning skills and an ability to adhere to deadlines;
- Excellent writing skills; fluency in written and spoken English; and
- Previous experience with the ADB or World Bank would be a distinct asset.

<b>JOB PARTICULARS</b>	
<p><b>Job Objective:</b></p> <p>The WUA Establishment and Training Team Leader will support the Department of Irrigation and Public Health (DIPH) and coordinate with the Department of Horticulture (DoH) in WUA establishment, forming training units in the DIPH and at target districts and coordinating the deployment of WUA facilitators at block level. WUAs will be established and trained to participate in planning, implementation, O&amp;M and handover of irrigation systems for management prior to the introduction of irrigation networks.</p>	
<p><b>Job Outputs:</b></p> <ul style="list-style-type: none"> <li>• establish a WUA unit within the DIPH and district WUA training teams, initially in the four PRF project districts, then in the other 3 HP-SHIVA project districts as irrigation schemes are identified and designed;</li> <li>• A unified DIPH-prepared WUA manual;</li> <li>• An information technology-based WUA-based water use monitoring system for remote reporting to the HP-SHIVA monitoring and evaluation unit;</li> <li>• Trained and functioning WUAs and higher levels of association<sup>7</sup> managing handed over sections of irrigation infrastructure on all HP-SHIVA-financed irrigation systems;</li> <li>• Monthly, Quarterly, Annual and Final WUA Development Progress reports and contributions to the particular subproject O&amp;M Manuals.</li> </ul>	
i.	Coordinate with the DIPH to establish and mentor a WUA unit within DIPH to work with all PRF subprojects as well as establishing training teams at district levels and trained staff at Sub-district, Block and Facilitator levels.
ii.	Working with the DIPH and the World Bank-financed HPHDP and JICA-financed HPADP, assist the DIPH to prepare a unified WUA manual to be “owned” by the government of Himachal Pradesh (HP) <sup>8</sup> incorporating best Indian and international practice as well as recommendations from HP-SHIVA. Additions to the manual to include standardisation of nomenclature of WUGs, WUAs (associations), WUFs (federations), their respective roles, and relations between the different levels, inclusion of women in WUAs to an agreed minimum percentage, gender equity in WUA management, handover of irrigation infrastructure for WUA management and fees for volumetric water use. The manual will be updated towards the end of the PRF based on lessons learned in WUA establishment and participatory water management during the PRF.
iii.	Prepare a WUA Development Plan that schedules the institutional development and training of the WUAs to be mobilized during the system

<sup>7</sup> Nomenclature recommended is WUG (water user group of farmers supplied by a hydrant, WUA (water user association (all WUGs supplied by the same lateral pipe) and WUAF (water user federation comprised of all WUAs supplied from a single source of water or scheme).

<sup>8</sup> At present there are two WUA manuals in use, one developed by the World Bank financed HPHDP and another by the JICA financed HPADP. The DIPH, which, under the Water Law, is responsible for WUA development, does not have a WUA manual and has relatively weak in-house capacity in this area. There is a need to develop a single, DIPH-approved WUA manual, which various projects (HPHDP, HPADP Phase II and HP-SHIVA) will use when collaborating with DIPH in the development of irrigations schemes and associated WUAs.

design process and effective with the start of the irrigation scheme distribution system installation.

- iv. Establish systems and procedures to monitor the progress of WUA establishment and training, ensuring that WUA committee positions are democratically elected, that the chairperson and deputy chairperson are a man and a woman or vice-versa, all participating WUAs are legally constituted and registered, have bank accounts and are fully trained to manage the distributary irrigation systems.
- v. Advise and prepare recommendations on participation of the WUAs in aspects of planning and design (including system walkthrough with the pipeline alignment design engineers), and construction activities.
- vi. Advise the DIPH systems design unit on design and construction aspects that best lend themselves to WUA's participation such as installing small solar powered pumps, assembling water tanks and simpler methods of joining pipes. Develop a methodology whereby legal WUA construction contracts could be formulated and implemented by the WUAs.
- vii. Develop methodologies with the DIPH Design Unit tailored to the needs of each scheme including field testing of equitable means of water management, irrigation scheduling, volumetrically measured cost recovery and other aspects of system management and infrastructure handover. For instance, the WUA should appoint a water superintendant (WS) onto their committee who would record all volumetric water use and report by mobile phone to the appointed DIPH operations engineer who should confirm supplied flows match demands at a target performance level. The Operations Engineer and WS should meet on a weekly basis to resolve water management issues..
- viii. Discuss with DIPH and DoH the effectiveness of the PMU and District WUA training teams, and Subdistrict and Block technical staff in supporting the WUA development program and recommend changes in their organisational structure, training, operations and financial structure that might better support the program.
- ix. Prepare monthly, Quarterly and Final PRF reports on WUA development progress and, working with the DIPH Design Team, help prepare individual scheme O&M Manuals. Ensure that information on the WUA development and management program, including digitally recorded system water use, are incorporated into the Project MIS and GIS systems.

**Position:** Water User Association (WUA) establishment and capacity building  
**Facilitators**

**Location:** DIPH Block offices in project districts (PMU)

**Category :** National consultant company or NGO

**Period of Engagement :** Initially, 60 person months in PY1 and approximately 180 person months in PY2 following the design of the initial HP-SHIVA irrigation area of 4,000 ha (each facilitator will cover at least 3 WUAs).

<p>Reports to: Water User Associations (WUA) establishment and capacity building Team Leader</p> <p>Positions Supervised: WUAs.</p>
<b>QUALIFICATION GUIDE</b>
<p><b>Qualifications (Facilitators)</b></p> <ul style="list-style-type: none"> <li>• Minimum general experience of 3 years in establishing and training WUAs;</li> <li>• At least a diploma in water management or related subject;</li> <li>• Experience in the transfer of irrigation system maintenance and/or management to WUAs;</li> <li>• Familiarity with irrigation water management issues in India at sub-national levels and practical experience of participatory water management at field level;</li> <li>• Ability to develop and maintain close association with farming communities;</li> <li>• Experience in facilitating and chairing meetings with farmers;</li> <li>• Good organizational and planning skills and an ability to adhere to deadlines;</li> <li>• Good writing skills; fluency in written and spoken English; and</li> </ul>
<b>JOB PARTICULARS</b>
<p><b>Job Objective:</b></p> <p>The WUA Establishment and Training Facilitators will mentor the farmers in WUA establishment. WUAs will be established and trained to participate in planning, implementation, O&amp;M and handover of irrigation systems for management prior to the introduction of irrigation networks.</p>
<p><b>Job Outputs:</b></p> <ul style="list-style-type: none"> <li>• establish WUAs within the assigned block in accordance with the DIPH-prepared WUA manual;</li> <li>• Train WUA farmer members in group and financial management, water use planning, and distribution systems maintenance and management with a view to the management of irrigation infrastructure on all HP-SHIVA-financed irrigation systems being transferred to WUAs or their higher levels of association ;</li> <li>• Monthly, Quarterly, Annual and Final WUA Development Progress reports and contributions to the particular subproject O&amp;M Manuals.</li> </ul>
<p>Based on a unified WUA manual, an agreed WUA Development Plan and an approved monitoring systems:</p>

- i. Conduct project orientation in the villages on WUA development to effectively communicate irrigation systems management objectives and obtain buy-in for the program;
- ii. Encourage project beneficiaries to collectively participate in the WUA development process, with special attention to the participation of the most marginalized-vulnerable groups;
- iii. Identify potential leaders from among the beneficiaries and assess their readiness & capabilities;
- iv. Facilitate organization of WUAs from among the project beneficiaries;
- v. Orient the project beneficiaries on the roles and responsibilities of WUA committee and ordinary members;
- vi. Train and coach WUA members in undertaking their roles in community-based irrigation system design, irrigation systems management, organizational development and management, networking, and conflict resolution;
- vii. Build the capacity of the WUA members to identify, implement. and monitor social safeguards in subproject planning and implementation;
- viii. Organize and coordinate WUA related meetings, assemblies, workshops, training and other events, ensuring attendance of required personnel;
- ix. Facilitate resolution of conflicts & grievances to ensure smooth implementation, buy-in and support of all stakeholders;
- x. Assist the Team leader and WUAs in crafting of irrigation system operation and management (O&M) plans and facilitates capacity-building of the WUA O&M team;
- xi. Coach the WUAs in complying with documentary, data gathering and reporting requirements and in developing and operationalizing a village-based irrigation scheme monitoring and evaluation system;
- xii. Assist in the conduct of environmental and social audits, and other project related events; and
- xiii. Performs other related tasks assigned by the Team Leader.

## **CS8 Package**

### **Community Horticulture Production and marketing Association (CHPMA) establishment and capacity building**

1. The Government of Himachal Pradesh intends to apply the proceeds of an Asian Development Bank loan for the implementation of the Himachal Pradesh Subtropical Horticulture, Irrigation and Value Addition Project (HP-SHIVA) The overall HP-SHIVA project, comprising a Project Readiness Facility ((PRF) US\$10 million over two years) and the ensuing loan, aims to increase the income of at least 25,000 farm households in seven districts (Bilaspur, Hamirpur, Kangra, Mandi, Solan, Sirmour and Una) of subtropical areas of Himachal Pradesh. In the long-term, the HP-SHIVA project will contribute to (i) increased income of rural households in Himachal Pradesh; and (ii) strengthened climate resilience in Himachal Pradesh. The HP-SHIVA project will expand irrigation to farmers, increase subtropical horticulture production and its climate resilience, and raise the profitability and farm gate price of subtropical horticulture production through value chain development of targeted commodities.
2. Project Readiness Facility (PRF) loan will pilot the development of drip-irrigated high-density horticulture production at 17 locations in 4 districts (Bilaspur, Hamirpur, Kangra, Mandi) and 13 blocks incorporating 168 ha of irrigated land across 16 irrigated areas and involving 480 male and female beneficiary landowning households.
3. The PRF will have the following four outputs:
  - (v) Output 1: Irrigation infrastructure development and farmer management systems established. This output will be management by DIPH. Output 1 will (a) construct or rehabilitate 16 irrigation schemes introducing innovative technologies for water extraction, distribution and storage, and enhanced climate and disaster resilience (PRF pilot); (b) establish and capacitate WUAs on the constructed irrigation schemes with women's participation and gender equitable leadership; and (c) finalize the draft WUA act to be submitted for the HP legislative assembly's enactment.
  - (vi) Output 2: Subtropical horticulture production technology and marketing systems demonstrated. This output will be managed by DOH. Output 2 will: (a) develop 17 subtropical horticulture plots covering 168 hectares, engaging approximately 600 male and female farmers for irrigated high- and ultra-high density production of citrus, guava, litchi and pomegranate (PRF pilot); (b) fence all horticulture plots to protect from animal predation (PRF pilot); (c) form CHPMA in the PRF areas and build their capacities for business/marketing; and (d) facilitate the development of CHPMA investment plans for subtropical horticulture value addition and market development.
  - (vii) Output 3: Enabling environment, tools and capacity for promoting irrigated subtropical horticulture provided. This output focuses on developing capacity building tools and creating an enabling environment for the implementation of the ensuing project. Specifically, the project will: (a) support DOH to prepare the Himachal Pradesh Horticulture Sector Development Strategy and Investment Plan 2023-2030; (b) provide technical training and experimental study tours, as well as investment project management including safeguards, procurement, gender, financial management and institutional strengthening for DOH and DIPH staff; (c) train CHPMA members on orchard



management through preparing the packages of practice for key subtropical horticulture crops and providing on-site training; (d) provide technical support to subtropical horticulture nurseries; and (e) establish scientific and project monitoring system in the Project Management Unit (PMU).

- (viii) Output 4: Ensuing investment project and its implementation readiness prepared. This output will support DOH and DIPH to prepare the feasibility studies, detailed engineering design and surveys, due diligence assessment, safeguards preparation work and bid documents for the ensuing loan, supported by PRF consultants. Possible public-private partnership pathways will be explored in collaboration with the Private Sector Operations Department as part of the ensuing loan preparation.

4. The GOHP proposes to use a portion of the loan to recruit a firm or non-government organization to, initially, assist the DOH to establish sustainable CHPMAs incorporating 480 farmers engaged in irrigated sub-tropical horticulture production developed under the HP-SHIVA PRF. The contract will subsequently involve the development of CHPMAs amongst the estimated 10,000 farmers who will be engaged in irrigated sub-tropical horticulture production on the approximately 4,000 ha of irrigable sub-tropical horticulture production area (about 40 irrigation schemes) to be identified and designed under the PRF and developed during the first phase of the HP-SHIVA project.

Position: **CHPMA establishment and capacity building Team Leader**

Location: Project Management Unit (PMU)

Category : National consultant company or NGO

Period of Engagement : 24 person months over 2 years.

Reports to: PMU Project Director (PD)

Positions Supervised: block level CHPMA facilitators.

#### **QUALIFICATION GUIDE**

##### **Qualifications (Team Leader)**

- Minimum general experience of 10 years in value chain development;
- At least a bachelor's degree in horticulture, marketing or a related subject;
- Experience in the development of farmer marketing organizations and their linkage to value chains;
- Familiarity with agricultural product marketing issues in India at national and sub-national levels and practical experience of farmer marketing organization development at field level;
- Ability to develop and maintain close association with government agencies and communities;
- Strong analytical, communication, documentation and presentation skills with experience in facilitating and chairing meetings with multiple stakeholder groups including farmers;
- Good organizational and planning skills and an ability to adhere to deadlines;
- Excellent writing skills; fluency in written and spoken English; and
- Previous experience with the ADB or World Bank would be a distinct asset.

#### **JOB PARTICULARS**

**Job Objective:**

The CHPMA Establishment and Training Team Leader will support the Department of Horticulture (DoH) in CHPMA establishment, forming training units in the DOH and at target districts and coordinating the deployment of CHPMA facilitators at block level. CHPMAs will be established and trained to assess and plan market entry opportunities, build linkages to key public and private sector market “gatekeepers”, ensure the supply of consistently high-quality products in market demand, add value to horticulture products, negotiate prices and contracts, etc.

**Job Outputs:**

- Within 3 months, establish a CHPMA unit within the DOH and DOH CHPMA training teams in the four project districts;
- Within 3 months, finalize a CHPMA operational manual;
- Within one year, up to 17 trained and functioning CHPMAs engaged in up to 4 multi-stakeholder platforms (MSPs);
- Within two years, approximately 220 trained and functioning CHPMAs engaged in up to 7 multi-stakeholder platforms (MSPs);
- Monthly, Quarterly, Annual and Final CHPMA development progress reports and contributions to the particular subproject O&M Manuals.

- i. Coordinate with the DoH to establish and mentor a CHPMA unit within the DOH as well as establishing DOH training teams at district levels and trained staff at Sub-district, Block levels.
- ii. Working with the DoH prepare a CHPMA manual incorporating best Indian and international practice to identify value addition and market entry positions and to prepare financially viable business plans. The manual will be updated towards the end of the PRF based on lessons learned in CHPMA establishment and participatory market assessment and building value chains and public-private partnerships for improved farmer market access and prices.
- iii. Prepare a CHPMA Development Plan that schedules the institutional development and training of the CHPMAs.
- iv. Establish systems and procedures to monitor the progress of CHPMA establishment and training, ensuring that CHPMA committee positions are democratically elected, that the chairperson and deputy chairperson are a man and a woman or vice-versa, all participating CHPMAs are legally constituted and registered, have bank accounts and are fully trained to add value to their products and access markets.
- v. Create a series of fora at district and state level with a view to linking key stakeholders, including CHPMA representatives, public mandis managers, private sector actors (traders, processors, input suppliers, investors, finance institutions) and government actors (municipal governance, research, extension) engaged in specific commodity markets, thereby strengthening private and public-private relationships across those commodity markets, with a view to promoting innovation and providing a conducive

environment/space for the brokerage of business and financial agreements between potential value chain stakeholders.

- vi. Advise and prepare recommendations on development of a value chain development fund (VCDF) that provides risk-based co-financing to catalyse innovative investments by public and private agri-enterprises and farmer organizations into prioritised value chains.
- vii. Prepare monthly, Quarterly and Final PRF reports on CHPMA development progress and ensure that information on the CHPMA development and management program are incorporated into the Project MIS and GIS systems.

Position: **CHPMA establishment and capacity building Facilitators**

Location: Project Management Unit (PMU)

Category : National consultant company or NGO

Period of Engagement : 60 person months in PY1 and 180 person months in PY2 as CHPMAs are established across the farmer beneficiaries of the 4,000 ha HP-SHIVA phase one irrigation area development (each facilitator will cover at least three CHPMAs).

Reports to: CHPMA establishment and capacity building Team Leader

Positions Supervised: CHPMAs.

### **QUALIFICATION GUIDE**

#### **Qualifications (Facilitators)**

- Minimum general experience of 3 years in farmer marketing organization development;
- At least a diploma in agriculture, marketing or a related subject;
- Experience in the linkage of farmer organizations to markets, including though value chain engagement;
- Familiarity with agriculture marketing systems and issues in India at sub-national levels and practical experience of farmer organization at field level;
- Ability to develop and maintain close association with farming communities;
- Experience in facilitating and chairing meetings with farmers;
- Good organizational and planning skills and an ability to adhere to deadlines;
- Good writing skills; fluency in written and spoken English; and

### **JOB PARTICULARS**

#### **Job Objective:**

The CHPMA Establishment and Training Facilitators will mentor the farmers in CHPMA establishment. CHPMAs will be established and trained to identify mechanisms to add value to their products and improve their market prices, including through value chain participation.

#### **Job Outputs:**

- Establish CHPMAs within the assigned block in accordance with the DoH-prepared CHPMA manual;
- Train CHPMAs farmer members in group and financial management, agriculture product quality control, value addition and marketing, and value chain linkage;
- Monthly, Quarterly, Annual and Final WUA Development Progress reports and contributions to the particular subproject O&M Manuals.

Based on a unified CHPMAs manual, an agreed CHPMAs Development Plan and an approved monitoring systems:

- xiv. Conduct project orientation in the villages on CHPMAs development to improve market access and farm gate prices;
- xv. Encourage project beneficiaries to collectively participate in the CHPMAs development process, with special attention to the participation of the most marginalized-vulnerable groups;
- xvi. Identify potential leaders from among the beneficiaries and assess their readiness & capabilities;
- xvii. Facilitate organization of CHPMAs from among the project beneficiaries;
- xviii. Orient the project beneficiaries on the roles and responsibilities of CHPMAs committee and ordinary members;
- xix. Train and coach CHPMAs members in undertaking their roles in high quality horticulture production and community-based market development/access;
- xx. Build the capacity of the CHPMAs members to identify, implement. and monitor social safeguards in subproject planning and implementation;
- xxi. Organize and coordinate CHPMAs related meetings, assemblies, workshops, training and other events, ensuring attendance of required personnel;
- xxii. Facilitate resolution of conflicts & grievances to ensure smooth implementation, buy-in and support of all stakeholders;
- xxiii. Assist the Team leader and CHPMAs in identifying and testing market opportunities and building linkages to value chains;
- xxiv. Coach the CHPMAs in complying with documentary, data gathering and reporting requirements and in developing and operationalizing a village-based horticulture marketing monitoring and evaluation system;
- xxv. Assist in the conduct of environmental and social audits, and other project related events; and
- xxvi. Performs other related tasks assigned by the Team Leader.

## **CS9 Package**

### **HP-SHIVA Ensuing Loan Project Document Preparation ToRs**

1. The Government of Himachal Pradesh intends to apply the proceeds of an Asian Development Bank loan for the implementation of the Himachal Pradesh Subtropical Horticulture, Irrigation and Value Addition Project (HP-SHIVA) The overall HP-SHIVA project, comprising a Project Readiness Facility ((PRF) US\$10 million over two years) and the ensuing loan, aims to increase the income of at least 25,000 farm households in seven districts (Bilaspur, Hamirpur, Kangra, Mandi, Solan, Sirmour and Una) of subtropical areas of Himachal Pradesh. In the long-term, the HP-SHIVA project will contribute to (i) increased income of rural households in Himachal Pradesh; and (ii) strengthened climate resilience in Himachal Pradesh. The HP-SHIVA project will expand irrigation to farmers, increase subtropical horticulture production and its climate resilience, and raise the profitability and farm gate price of subtropical horticulture production through value chain development of targeted commodities.
2. Project Readiness Facility (PRF) loan will pilot the development of drip-irrigated high-density horticulture production at 17 locations in 4 districts (Bilaspur, Hamirpur, Kangra, Mandi) and 13 blocks incorporating 168 ha of irrigated land across 16 irrigated areas and involving 480 male and female beneficiary landowning households.
3. The PRF will have the following four outputs:
  - (ix) Output 1: Irrigation infrastructure development and farmer management systems established. This output will be managed by DIPH. Output 1 will (a) construct or rehabilitate 16 irrigation schemes introducing innovative technologies for water extraction, distribution and storage, and enhanced climate and disaster resilience (PRF pilot); (b) establish and capacitate WUAs on the constructed irrigation schemes with women's participation and gender equitable leadership; and (c) finalize the draft WUA act to be submitted for the HP legislative assembly's enactment.
  - (x) Output 2: Subtropical horticulture production technology and marketing systems demonstrated. This output will be managed by DOH. Output 2 will: (a) develop 17 subtropical horticulture plots covering 168 hectares, engaging approximately 600 male and female farmers for irrigated high- and ultra-high density production of citrus, guava, litchi and pomegranate (PRF pilot); (b) fence all horticulture plots to protect from animal predation (PRF pilot); (c) form CHPMA in the PRF areas and build their capacities for business/marketing; and (d) facilitate the development of CHPMA investment plans for subtropical horticulture value addition and market development.
  - (xi) Output 3: Enabling environment, tools and capacity for promoting irrigated subtropical horticulture provided. This output focuses on developing capacity building tools and creating an enabling environment for the implementation of the ensuing project. Specifically, the project will: (a) support DOH to prepare the Himachal Pradesh Horticulture Sector Development Strategy and Investment Plan 2023-2030; (b) provide technical training and experimental study tours, as well as investment project management including safeguards, procurement, gender, financial management and institutional strengthening for DOH and DIPH staff; (c) train CHPMA members on orchard management through preparing the

packages of practice for key subtropical horticulture crops and providing on-site training; (d) provide technical support to subtropical horticulture nurseries; and (e) establish scientific and project monitoring system in the Project Management Unit (PMU).

- (xii) Output 4: Ensuing investment project and its implementation readiness prepared. This output will support DOH and DIPH to prepare the feasibility studies, detailed engineering design and surveys, due diligence assessment, safeguards preparation work and bid documents for the ensuing loan, supported by PRF consultants. Possible public-private partnership pathways will be explored in collaboration with the Private Sector Operations Department as part of the ensuing loan preparation.

4. In pursuit of output 4, the GOHP proposes to use a portion of the loan to contract either a consulting company to design the HP-SHIVA main loan project. As detailed in **Error! Reference source not found.**, below, in total, 26 person months of international expertise and 34 months of national expertise would be employed to prepare the detailed project design and supporting documents to ADB requirements.

**Table 2: HP-SHIVA project design consultant input**

Key Expert	International (person-months)	National (person-months)
Team Leader/value chain specialist	6	
Deputy Team Leader/Irrigation Specialist		5
Irrigation engineer	5	
Horticulture specialist	3.5	4
Social safeguards specialist	1.5	2
Environmental safeguards specialist	1.5	2
Economist	2.5	
Monitoring and Evaluation specialist	2.5	3
Climate Change and Natural Resources Management Specialist	1.5	0
Project implementation specialist	2	0
Gender specialist	0	1
Water user association specialist	0	2
Farmer organization specialist	0	2
Capacity building specialist	0	2
Procurement specialist	0	4
Finance specialist	0	3
Administrative officer	0	4
Total	26.0	34

5. Terms of reference for the HP-SHIVA project design consultant inputs are detailed below.

6. **Team Leader** (international). The international specialist should have a postgraduate degree in agriculture, agriculture economics or commerce with at least 15 years of international experience in designing and implementing agriculture or horticulture value chain development investment projects. Familiarity with rural livelihoods and climate change-related issues of India will be an advantage.

7. **As team leader.** The consultant will provide support to the executing agency in leading TA activity implementation to arrive at a detailed design of the HP-SHIVA project, in line with the government's policy and strategies and ADB requirements, including scope, targeting, cost estimates, financing plan, implementation arrangements, monitoring, evaluation and reporting, economic, financial, social and environmental analysis, sector and thematic assessments, due diligence and risk and

mitigation measures. This includes, but is not limited to, performance targets and indicators; external assistance to the sector and lessons learned; design and monitoring framework; project outputs and description; detailed project cost estimates; implementation arrangements and schedule; indicative procurement packaging and draft procurement plans; staffing; terms of reference for consulting services; project impacts benefits and risks; and project performance monitoring system; and preparation of a project administration manual (PAM); inputs to the Report and Recommendation to the President for the ensuing project; review outputs of the consulting team and ensure timely achievement of all milestone activities; prepare regular reports discussing the progress of project preparation to be submitted to ADB and the government; develop a project roll out plan for the project; and complete any other tasks as may be reasonably requested by the ADB or the government. The Team leader will also support the ADB Project Officer/ Mission Leader in preparation of the Aide Memoire and post-mission follow-up and implement any other tasks as may be reasonably requested by the ADB or the government.

8. **As a value chain specialist**, the consultant will, building off the Horticulture Development Strategy and Investment Plan 2023-2030, be responsible for: (i) investigating the current and potential demand of the key HP subtropical horticulture products, their various market destinations and related price trends so as to allow analysts to identify constraints, barriers and opportunities; (ii) describing and evaluate the feasibility of commercialization and market linkages needed for the expansion of targeted subtropical horticulture products into national and international markets; (iii) identifying the main actors and other stakeholders (supporters and influencer) and how are they linked and interact in the value chain; assessing the flow of products, information and financial resources along the value chains – both descriptive and as a value chain map; (iv) examining the input and output market and their structure. Procurement processes, accessibility to and availability of varieties required as well as related standards and information (v) identification of final buyer for output market, type of contractual arrangements and transaction costs involved; (vi) and (vi) analyse the degree of competitiveness, including the existence of monopolies, monopsonies, oligopolies, market share and market segmentation for both input and output markets; and identify potential lead firms for each targeted value chain; and (vii) identifying mechanisms for building linkages between subtropical horticulture producer associations and value chain lead firms (gatekeepers) including mechanism for public-private partnerships to support value chain development.

9. **Irrigation engineer** (international). The irrigation engineer, subject to satisfactory performance under the PRF, will be the same engineers assisting the PMU with PRF implementation. The engineers shall: (i) support the development of a water resources planning unit within the PMU structure; (ii) guide the planning unit in coordinating with DoH and DIPH in developing a long list of possible schemes and priority criteria for shortlisting for both entry into the loan and for design and tender preparation of 40% of the total planned project irrigation infrastructure; (iii) identify innovative systems and structures for the rehabilitation of existing and development of green-field irrigation schemes, including their increased resilience to climate change and disaster; (iv) support DIPH in the determination of monthly reliable flows and flood design criteria whilst taking into account possible changes in such parameters due to climate change for a 30 year planning horizon; (v) support DIPH in ensuring that the water demand for proposed subprojects cropping patterns can be supplied within the



accepted standard of reliability; (vi) assist DIPH with the preparation of manuals and guidelines for the design of the irrigation infrastructure, drawing from lessons learnt during the PRF pilot program, including modernization of the management systems and conclusions from climate change studies; (vii) assist DPIH to draft terms of reference for design consultants to prepare detailed engineering designs and contract documents for infrastructure design on 40% of the proposed irrigation schemes; (viii) assist the DIPH to tender, evaluate and approve irrigation infrastructure construction contracts for implementation at loan effectiveness; and (ix) complete any other tasks as may be reasonably requested by ADB or the government.

10. **Deputy Team leader/irrigation engineer** (national). The Engineer should have at least 7 years general experience of in irrigation systems design, at least a bachelor's degree in civil engineering, significant water user association establishment experience, familiarity with irrigation and water management issues in India at national and sub-national levels and an ability to develop and maintain close association with government agencies and communities.

11. The deputy team leader/engineer would: (i) assist the Team leader in (a) support the team leader in building effective communication channels with the EA; (b) the preparation of a project administration manual (PAM); (c) developing a project roll out plan; (d) mapping of resource and service providers and developing a directory of potential partners and resource institutions that can support the project.; and (ii) assist the irrigation engineer in: (a) the development of a water resources planning unit within the PMU structure; (b) developing a long list of possible schemes and priority criteria for shortlisting for both entry into the loan and for design and tender preparation of 40% of the total planned project irrigation infrastructure; (c) support to DIPH in the determination of monthly reliable flows and flood design criteria whilst taking into account possible changes in such parameters due to climate change for a 30 year planning horizon; and (d) assist the DIPH to tender, evaluate and approve irrigation infrastructure construction contracts for implementation at loan effectiveness.

12. **Horticulture specialist** (international). The specialist shall have an advanced degree in agriculture, horticulture or in a related discipline. He/she should have at least 10 years of experience in designing and managing horticulture production programs in Asia and experience in high-density subtropical horticulture production.

13. The specialist would: (i) in partnership with national academic horticulture specialists, conduct a review of the PRF-prepared POPs in light of PRF implementation experience and international best practice and revise them accordingly; (ii) review agro-climatic conditions within the proposed project locations and advise the PMU on their suitability for intensive smallholder-based subtropical horticulture production; (iii) with the project economist, review and revise existing subtropical crop production models, taking into account possible climate change impacts over the life expectancy of the crop; (iv) with the capacity building specialist, assess the skill sets of DoH staff at state, district, sub-district and block levels and prepare recommendations for targeted capacity building under the project; (v) review the availability of quality genetic material for project implementation and prepare recommendations for its improvement, particularly from the private sector; (vi) review prevailing nursery management practices and prepare recommendations and propose investment support for their improvement; and (vii) complete any other tasks as may be reasonably requested by ADB or the government.

14. **Horticulture specialist (national).** The consultant should have at least 7 years general experience of in horticulture development, at least a bachelor's degree in horticulture production, familiarity with high-density horticulture production in India at national and sub-national levels and an ability to develop and maintain close association with government agencies and communities.

15. The consultant would assist the international horticulture specialist in: (i) the identification of key subtropical horticulture crops by location for development under the Project; (ii) assessing technology gaps in high density horticulture production in HP; (iii) assessing farmer capacity for intensive horticulture production and the development of appropriate capacity building programs; (iv) support the DoH in the determination of horticulture production inputs under the project and the mapping of potential suppliers; and (v) assisting the DoH to tender, evaluate and approve horticulture production input contracts for implementation at loan effectiveness.

16. **Economist** (international) The specialist shall have an advanced degree in economics, finance, or in a related discipline. He/she should have at least 10 years of experience in preparing economic and financial analyses, and designing of agriculture or rural development project costing, budgeting and financial management of donor-financed and government-implemented development projects in several countries. Experience in India would be an advantage.

17. The specialist shall: (i) in collaboration with the team leader, prepare the detailed sector assessment and thematic reports for the proposed PRF; (ii) prepare the economic and financial analyses for the proposed project accordance with ADB revised guidelines on economic analysis for investment projects including distribution and sensitivity analysis; (iii) prepare financial sustainability analysis for the proposed project; (iv) based on this analysis, contribute to the selection of priority investments; (v) provide inputs to the Financial Management and Procurement Specialists in preparing the project financial and procurement plans; (vi) in collaboration with the Financial Management Specialist prepare detailed project cost estimates, in form and substance agreeable to ADB; (vii) provide inputs in the preparation of a PAM; (viii) support the consultant team leader in the submission of periodic reports; and (ix) complete any other tasks as may be reasonably requested by ADB or the government.

18. **Financial Management Specialist.** (national) The national specialist should have a degree in finance and management with at least 10 years of experience in agriculture or rural development project financial management, project implementation and operations. The specialists should preferably possess a professional accountancy/finance qualification such as a chartered accountant, certified public accountant, or equivalent and be familiar with the financial guidelines and related procedures of ADB and the government.

19. The specialist will: (i) conduct financial management assessment of the executing agency and the PRF, looking into governance, integrity and risks in accordance with ADB guidelines; (ii) recommend mitigation measures to help safeguard risk exposures; (iii) prepare financial and funds flow for community grants, project management and administration budget line items, training and other relevant cost items of the project; (iv) prepare a financing plan for the project and describe the flow of funds and disbursement procedures; (v) provide inputs to the PAM; (vi) review

available project implementation/implementation-related documents of other internationally financed projects in Himachal Pradesh (HP) (Project Appraisal Document of World Bank Loans, Operations Manuals, Impact Evaluation Study, audit reports, etc.) and extract relevant and useful learning from these projects; (vii) review the current staffing and staffing policies and structures of the EA and assess the requirements in terms of number and qualifications of financial management staff and map required staff and positions to determine recruitment needs; (viii) review and recommend options for hiring or contracting out services of consultants and staff and develop terms of reference for the staff and project financial management consultants at national levels; (ix) undertake an overall governance and risk assessment of the PF and the EA and develop specific actions for management of risks, including capacity development recommendations; (x) analyze information on country and project level governance and capacity; (xi) review structures, personnel management, budget, and staff for project implementation and identify human and other resource constraints; and (xii) complete any other tasks as may reasonably be requested by ADB or the government.

**20. Climate Change and Natural Resources Management Specialist** (international). The CC and NRM engineer, subject to satisfactory performance under the PRF, will be the same specialist assisting the PMU with PRF implementation. The specialist shall: (i) support the development of NRM/CC planning and implementation within the PMU structure, including processes, procedures and budgets for compliance with ADB safeguards and GOI environmental requirements for environmental permitting of project investments; (ii) update the PRF Environmental Management Plan (EMP) to provide a first draft EMP that attends to the full range of investments entertained under the HP-SHIVA loan (e.g., addition of agro-processing, supply chain infrastructure, others); (iii) guide the planning unit, in coordination with DoH and DIPH, to develop the implementation framework (including institutional and implementation arrangements, and budgets) for the EMP under the HP-SHIVA loan; (iv) identify key lessons-learned, successful experiences, challenges and weaknesses, and gaps from the PRF, viz. ENRM/CC aspects, for inclusion in and strengthening of the design of the HP-SHIVA loan project; (v) assist the planning unit, in coordination with DoH and DIPH, with the preparation of manuals and guidelines for the integration of ENRM/CC aspects into the design of the HP-SHIVA investments and interventions, drawing from lessons learnt during the PRF pilot program; (vi) assist the planning units in coordination with DoH and DIPH to draft terms of reference for design consultants to prepare detailed NRM/CC aspects within the design of the HP-SHIVA investments and interventions; and to supervise and review the consultants' work; and (vii) complete any other tasks as may be reasonably requested by ADB or the government.

**21. Social Safeguard/Resettlement Specialist** (international). The specialist shall have at least a master's degree in social sciences, sociology, anthropology, or other relevant disciplines for the assignment, with 10 years working experience in indigenous peoples, human settlement and safeguards in developing countries. Experience in India is an advantage. The specialist must be familiar with ADB's safeguards policies and procedures.

**22.** The specialist shall: (i) design socioeconomic surveys and social impact assessments at community level to be undertaken by project staff and volunteers;

(ii) prepare screening checklist and procedure for the conduct of consultations specially for areas populated by ethnic groups; (iii) prepare and finalize the indigenous peoples planning framework and (if required) the resettlement framework, in case there are land acquisition and resettlement impacts, including indigenous peoples and involuntary impact categorization; (iv) prepare due diligence report based on initial list of PRF investments including on land acquisition and resettlement as required under the ADB guidelines; (v) coordinate with the PRF team to ensure that mitigation measures are integrated into the PRF design features; (vi) assess the capacity of the EA to screen impacts, prepare and implement resettlement frameworks; (vii) recommend appropriate capacity development activities to develop or enhance safeguards knowledge and skills of executing agency; (viii) provide inputs on social dimension and safeguard component on all project documents in the completion of the PAM; (ix) support the consultant team leader in the submission of periodic reports; and (x) complete any other tasks as may be reasonably requested by ADB or the government.

23. **Social Safeguard/Resettlement Specialist** (national). The specialist shall have at least a degree in social sciences, sociology, anthropology, or other relevant disciplines for the assignment, with 7 years working experience in indigenous peoples, human settlement and safeguards in India. Experience outside India is an advantage. The specialist must be familiar with ADB's safeguards policies and procedures.

24. The national specialist shall assist the international specialist in the implementation of his/her tasks, taking the lead in the implementation of socioeconomic surveys and social impact assessments.

25. **Environment safeguards specialist** (international). The Environment safeguards specialist will lead the preparation of the environmental impact assessment and loan documents as per ADB requirement. The specialist will preferably have a master's degree in Environmental Sciences or equivalent and at least 7 years of experience in preparing environmental impact assessments (EIAs) for donor agencies including the ADB.

26. The specialist will be responsible for preparing the environmental assessment study for the PRF. He/she will survey and analyze potential environmental impacts and conduct public consultation with impacted communities in the process of preparing an environmental management plan in accordance with ADB requirements. This will include: (i) consultation with the technical team to confirm the project design, schedule location and detailed activities; (ii) conduct a scoping assessment to define environmental parameters/indicators that will be affected by the project activities; (iii) define the geophysical environment, ecological environment, and social environment of the project area; (iv) identify potential environmental impacts from the project; (v) identify potential mitigation measures for any potential impact; (vi) assess institutional arrangement to implement proposed mitigation measures and arrangements for handling grievance from affected people; (vii) prepare and discuss with the technical team an environmental management plan (EMP) matrix showing activities and causal impacts, potential impacts, proposed mitigation measures, who will implement the measures and monitor their implementation; (viii) estimate the cost of implementing mitigation measures; and (ix) discuss the proposed EMP matrix and grievance redress mechanism (GRM) with government and secure an in-principle agreement for all proposed mitigation measures.

27. Plan a public consultation process with government detailing locations and contact persons for each location and have the EMP matrix translated for distribution prior to the agreed public consultation. Build the capacity of government staff to adequately and clearly explain the proposed project including the potential environmental impacts, the location of those impacts, the persons affected and how the impacts will be mitigated. Ensure affected people participate and raise their concerns and that those concerns are addressed. Ensure the details of participants are recorded.

28. Prepare an environmental assessment report compliant with ADB's SPS including reference to compliance with the requirements for environmental clearance from the Ministry of Environment.

29. **Environment safeguards specialist** (national). The national environment safeguards specialist will preferably have a Degree in Environmental Sciences or equivalent and at least 5 years of experience in preparing environmental impact assessments (EIAs) in India.

30. The national specialist shall assist the international specialist in the implementation of his/her tasks, taking the lead in (i) the conduct of a scoping assessment to define environmental parameters/indicators that will be affected by the project activities; (ii) defining the geophysical environment, ecological environment, and social environment of the project area; and (iii) planning and implementing the public consultation process.

31. **Gender and Social Development Specialist** (national). The national specialist shall have a postgraduate degree in gender, anthropology, international development, environmental management, social development, sociology, or related fields with at least 10 years of relevant professional experience in the field of social development, community development, social protection, or gender and development. Familiarity with ADB policies on social safeguards, gender development, and core labor standards is required. Working experience in agriculture and natural resource sector in India is preferred.

32. The specialist will be responsible for the following: (i) prepare and finalize the poverty, social and gender assessments in accordance with ADB's Guidelines; (ii) prepare and finalize a social and poverty analysis report that adheres to ADB requirements; (iii) prepare and finalize a summary poverty reduction and social strategy, including any action or mitigation plans or other measures as appropriate; (iv) prepare and finalize a gender equity and social analysis action plan (GESIAP) based on ADB's Policy; (v) conduct a social development and gender assessment and core labor standards assessment, particularly on child and forced labor and equal pay for equal work and conduct field surveys and/or focus group discussions to inform the social development and gender assessments; (vi) provide inputs on social dimension and safeguard component on all project documents and in the completion of the PAM; (vii) support the consultant team leader in the submission of periodic reports; and (viii) complete any other tasks as may be reasonably requested by ADB or the government.

33. **Project Implementation specialist** (international). The specialist should have a degree in finance and management with at least 10 years of experience in

agriculture or livelihood project financial management, project implementation and operations. The specialist must be familiar with procurement guidelines and related procedures of ADB and the government.

34. The specialist will (i) look into governance, integrity and risks, in accordance with ADB guidelines; (ii) recommend mitigation measures to help safeguard risk exposures; (iii) review available project implementation/implementation-related documents of projects in India (Project Appraisal Document of World Bank HPHDP Loan, Operations Manuals, Impact Evaluation Study, audit reports, etc.) and extract relevant and useful learning from these projects; (iv) review and revise the procurement capacity and financial management assessments in accordance with ADB guidelines and requirements; (v) undertake an overall governance and risk assessment of the project, the executing agency and develop specific actions for management of risks, including capacity development recommendations; (vi) analyze information on country and project level governance and capacity; (vii) assess the management capacity of the EA for the proposed project and provide recommendations for risk management and capacity development and other support needed for project implementation; (viii) develop a risk management action plan for managing risks; (ix) prepare relevant sections for the PAM; and (x) complete any other tasks as may reasonably be requested by ADB or DoH.

35. **Capacity building specialist** (national). The national specialist shall have a post-graduate degree in human resource management, education, public administration or relevant fields with at least 10 years of experience in conducting training for project staff of agriculture-related projects.

36. The specialist shall be responsible for the following: (i) a capacity and training needs assessment report on the implementing partners and target districts, blocks and villages, based on the requirements of the project; (ii) design of the training program, manuals and training aids to support the project; (iii) institutional mapping of possible resource institutions and partners in the provision of continuing training; (iv) the development of a human resource development plan, describing the project staffing and skills needs throughout the project life, identifying skills gaps and how to fill them and developing the terms of reference for the various positions and expertise required by the project; (v) a recruitment plan supporting the project roll-out schedule, in consultation with ADB and the government; (vi) pre-and in-service training plan and materials for the staff to be hired; (vii) provide inputs in the preparation of a PAM; (viii) support to the consultant team leader in the submission of periodic reports; and (ix) any other tasks as may be reasonably requested by ADB or the government.

37. **Monitoring and Evaluation Specialist** (international). The international specialist shall have post graduate degree in economics or statistics, with 10 years of experience in monitoring and evaluation and undertaking impact evaluation studies and surveys using randomized control trials or semi-experimental methods for agriculture and rural development projects in several countries. Familiarity with statistical analysis software programs is preferred.

38. The consultant will be responsible for, but not limited to, the following: (i) develop and recommend an M&E framework for the PRF, including reporting templates for use by project staff, that is consistent with government M&E systems; (ii) design a baseline study to generate information in support of the M&E framework;

(iii) prepare terms of reference for impact evaluation studies to be undertaken at PRF mid-term and end term; (iv) recommend other impact or special studies and prepare terms of reference to measure impact of the project at selected stages of project; (v) prepare a training design and train national project staff or staff of the government EA in the use of the M&E framework; (vi) oversee the implementation of a baseline study for the PRF; (vii) prepare the detailed sector assessment and thematic reports for the proposed PRF; (viii) provide inputs in the preparation of a PAM; (ix) support the consultant team leader in the submission of periodic reports; and (x) complete any other tasks as may be reasonably requested by ADB or the government.

39. **Monitoring and Evaluation Specialist** (national). The national specialist shall have a degree in economics or statistics, with at least 7 years of experience in monitoring and evaluation and undertaking impact evaluation studies and surveys using randomized control trials or semi-experimental methods for agriculture and rural development projects in India. Familiarity with statistical analysis software programs is preferred.

40. The national specialist shall assist the international specialist in the implementation of his/her tasks, taking the lead in coordinating the implementation of the baseline survey.

41. **Financial Management Specialist.** (national) The national specialist should have a degree in finance and management with at least 10 years of experience in agriculture or rural development project financial management, project implementation and operations. The specialists should preferably possess a professional accountancy/finance qualification such as a chartered accountant, certified public accountant, or equivalent and be familiar with the financial guidelines and related procedures of ADB and the government.

42. The specialist will: (i) conduct financial management assessment of the executing agency and the PRF, looking into governance, integrity and risks in accordance with ADB guidelines; (ii) recommend mitigation measures to help safeguard risk exposures; (iii) prepare financial and funds flow for community grants, project management and administration budget line items, training and other relevant cost items of the project; (iv) prepare a financing plan for the project and describe the flow of funds and disbursement procedures; (v) provide inputs to the PAM; (vi) review available project implementation/implementation-related documents of other internationally financed projects in Himachal Pradesh (HP) (Project Appraisal Document of World Bank Loans, Operations Manuals, Impact Evaluation Study, audit reports, etc.) and extract relevant and useful learning from these projects; (vii) review the current staffing and staffing policies and structures of the EA and assess the requirements in terms of number and qualifications of financial management staff and map required staff and positions to determine recruitment needs; (viii) review and recommend options for hiring or contracting out services of consultants and staff and develop terms of reference for the staff and project financial management consultants at national levels; (ix) undertake an overall governance and risk assessment of the PF and the EA and develop specific actions for management of risks, including capacity development recommendations; (x) analyze information on country and project level governance and capacity; (xi) review structures, personnel management, budget, and staff for project implementation and identify human and other resource constraints; and (xii) complete any other tasks as may reasonably be requested by ADB or the

government.

43. **Procurement specialist** (national) The specialist will hold preferably a graduate degree in a relevant discipline (e.g., Procurement, Engineering, Law, Management or Business) and preferably have at least 10 years of experience in procurement practices in Asia, with a background in the implementation of development projects. Experience in the area of procurement of civil works and goods following ADB's Procurement Guidelines (2015, as amended from time to time), undertaking country procurement assessments, and national procurement reform programs will be a strong advantage.

44. The expert will (i) carry out procurement risk assessment, including a procurement capacity assessment of the EA (ii) prepare a procurement plan including packaging of works, services, and goods with estimated cost and time schedule; (iii) prepare requests for proposals and bidding documents for procurement of works, services and goods; (iv) provide inputs in the preparation of a PAM; and (v) assist the EA in the recruitment of consultants and procurement of goods and works contracts.

45. **WUA specialist**, (national). Subject to satisfactory performance under the PRF, the WUA specialist will be the same specialist assisting the PMU with WUA development under the PRF. The WUA specialist shall: (i) expand the WUA support Unit in the PMU and training teams at all levels to manage the HP-SHIVA Loan Project WUA development program. The Consultant will: (i) ensure that s/he and the training teams are partnered at all levels by DIPH staff with the view of capacity transfer and institutionalizing best WUA development and management experience within the DIPH; (ii) support the DIPH in further updating the WUA Manual as necessary as experience develops in irrigating maturing horticulture crops; (iii) continue with the activities developed under the PRF' above in expanded form to cover all HP-SHIVA schemes under the loan; and (iv) prepare a Final WUA Development Report drawing on the experience and lessons learnt during both the PRF and the HP-SHIVA loan. Guide the DIPH Design and WUA teams in preparing individual scheme O&M manuals for schemes implemented during the loan.

46. **CHDMA specialist**, (national). Subject to satisfactory performance under the PRF, the CHDMA specialist will be the same specialist assisting the PMU with CHDMA development under the PRF. The CHDMA specialist shall: (i) expand the CHDMA support Unit in the PMU and training teams at all levels to manage the HP-SHIVA Loan Project CHDMA development program. The Consultant to ensure that s/he and the training teams are partnered at all levels by DoH staff with the view of capacity transfer and institutionalizing best CHDMA development and management experience within the DoH at headquarters and field levels; (ii) support the DoH in upgrading the CHDMA Manual as necessary as experience develops in the value addition and marketing of horticulture crops; (iii) continue with the activities developed under the PRF in expanded form to cover all HP-SHIVA schemes under the loan; and (iv) working with the international value chain specialist: (a) establish a series of fora at district and state level with a view to linking key stakeholders, including prospective HP-SHIVA CHDMA representatives, public mandis managers, private sector actors (traders, processors, input suppliers, investors, finance institutions) and government actors (municipal governance, research, extension) engaged in specific commodity markets; and (b) support the establishment of a value chain development fund (VCDF) and supporting manuals that provides risk-based co-financing to catalyse innovative



investments by public and private agri-enterprises and farmer organizations into prioritised value chains

47. **Administrative officer**, (national). The administrative officer shall: (i) coordinate team meetings and travel programs; (ii) manage and maintain team member timesheets; (iii) coordinate team member expense payments and their reconciliation; (iv) manage mission banking matters; (v) establish and maintain a filing systems covering all mission activities; (vi) coordinate with the PMU on the implementation of the HP-SHIVA project design.

## **CS10 Package**

### **TERMS OF REFERENCE FOR INDEPENDENT INTERNAL AUDIT FIRM**

#### **Introduction**

1. The Government of Himachal Pradesh intends to apply the proceeds of an Asian Development Bank loan for the implementation of the Himachal Pradesh Subtropical Horticulture, Irrigation and Value Addition Project (HP-SHIVA). The overall HP-SHIVA project, comprising a Project Readiness Facility ((PRF) US\$10 million over two years) and the ensuing loan, aims to increase the income of at least 25,000 farm households in seven districts (Bilaspur, Hamirpur, Kangra, Mandi, Solan, Sirmour and Una) of subtropical areas of Himachal Pradesh. In the long-term, the HP-SHIVA project will contribute to (i) increased income of rural households in Himachal Pradesh; and (ii) strengthened climate resilience in Himachal Pradesh. The HP-SHIVA project will expand irrigation to farmers, increase subtropical horticulture production and its climate resilience, and raise the profitability and farm gate price of subtropical horticulture production through value chain development of targeted commodities.

2. Project Readiness Facility (PRF) loan will pilot the development of drip-irrigated high-density horticulture production at 17 locations in 4 districts (Bilaspur, Hamirpur, Kangra, Mandi) and 13 blocks incorporating 168 ha of irrigated land across 16 irrigated areas and involving 480 male and female beneficiary landowning households.

3. The PRF will have the following four outputs:

(xiii) Output 1: Irrigation infrastructure development and farmer management systems established. This output will be managed by DIPH. Output 1 will (a) construct or rehabilitate 16 irrigation schemes introducing innovative technologies for water extraction, distribution and storage, and enhanced climate and disaster resilience (PRF pilot); (b) establish and capacitate WUAs on the constructed irrigation schemes with women's participation and gender equitable leadership; and (c) finalize the draft WUA act to be submitted for the HP legislative assembly's enactment.

(xiv) Output 2: Subtropical horticulture production technology and marketing systems demonstrated. This output will be managed by DOH. Output 2 will: (a) develop 17 subtropical horticulture plots covering 168 hectares, engaging approximately 600 male and female farmers for irrigated high- and ultra-high density production of citrus, guava, litchi and pomegranate (PRF pilot); (b) fence all horticulture plots to protect from animal predation (PRF pilot); (c) form CHPMA in the PRF areas and build their capacities for business/marketing; and (d) facilitate the development of CHPMA investment plans for subtropical horticulture value addition and market development.

(xv) Output 3: Enabling environment, tools and capacity for promoting irrigated subtropical horticulture provided. This output focuses on developing capacity building tools and creating an enabling environment for the implementation of the ensuing project. Specifically, the project will: (a) support DOH to prepare the Himachal Pradesh Horticulture Sector Development Strategy and Investment Plan

2023-2030; (b) provide technical training and experimental study tours, as well as investment project management including safeguards, procurement, gender, financial management and institutional strengthening for DOH and DIPH staff; (c) train CHPMA members on orchard management through preparing the packages of practice for key subtropical horticulture crops and providing on-site training; (d) provide technical support to subtropical horticulture nurseries; and (e) establish scientific and project monitoring system in the Project Management Unit (PMU).

- (xvi) Output 4: Ensuing investment project and its implementation readiness prepared. This output will support DOH and DIPH to prepare the feasibility studies, detailed engineering design and surveys, due diligence assessment, safeguards preparation work and bid documents for the ensuing loan, supported by PRF consultants. Possible public-private partnership pathways will be explored in collaboration with the Private Sector Operations Department as part of the ensuing loan preparation.

## A. Background

4. These terms of reference (ToR) outline the scope of works, deliverables and work project for the Internal Audit Firm. The Firm will support the Himachal Pradesh (HP) Department of Horticulture (DoH) and Department of Irrigation and Public Health (DIPH) in the implementation of the HP Sub-tropical Horticulture, Irrigation and Value Addition Project (HP-SHIVA) Project Readiness Facility (PRF) Loan. The expected outcome is improved subtropical horticulture production. The project comprises four outputs: (i) Irrigation infrastructure development established and farmer management systems established; (ii) Subtropical horticulture production technology and marketing systems demonstrated; (iii) Enabling environment, tools and capacity for promoting intensive irrigated subtropical horticulture provided; and (iv) Ensuing investment project and its implementation readiness prepared.

## B. The Project

5. **Output 1: Irrigation infrastructure development and farmer management systems established.** This output will be managed by DIPH. Output 1 will (a) construct or rehabilitate 16 irrigation schemes introducing innovative technologies for water extraction, distribution and storage, and enhanced climate and disaster resilience (PRF pilot); and (b) establish and capacitate water user associations on the constructed irrigation schemes with women's participation and gender equitable leadership.

6. **Output 2: Subtropical horticulture production technology and marketing systems demonstrated.** This output will be managed by DOH. Output 2 will: (a) develop 17 subtropical horticulture plots covering 168 hectares, engaging 480 male and female farmers for irrigated high- and ultra-high density production of citrus, guava, litchi and pomegranate; (b) fence all horticulture plots to protect from animal predation; (c) form community horticulture production and marketing associations (CHPMA) in the PRF areas and build their capacities for business/marketing; and (d) facilitate the development of CHPMA investment plans for subtropical horticulture value addition and market development. (removed primary processing equipment and infrastructure – assuming no budget)

7. **Output 3: Enabling environment, tools and capacity for promoting irrigated subtropical horticulture provided.** This output focuses on developing capacity building tools and creating an enabling environment for the implementation of the ensuing project. Specifically, the project will: (a) support DOH to prepare the Himachal Pradesh Horticulture Sector Development Strategy and Investment Plan 2023-2030; (b) provide technical training and experimental study tours, as well as investment project management including safeguards, procurement, gender, financial management and institutional strengthening for DOH and DIPH staff; (c) capacitate CHPMA members on orchard management through preparing the packages of practice for key subtropical horticulture crops and providing on-site training; (d) provide technical support to subtropical horticulture nurseries; and (e) establish scientific and project monitoring system in the Project Management Unit (PMU).

8. **Output 4: Ensuing investment project and its implementation readiness prepared.** This output will support DOH and DIPH to prepare the feasibility studies, detailed engineering design and surveys, due diligence assessment, safeguards preparation work and bid documents for the ensuing loan, supported by PRF consultants. Possible public-private partnership pathways will be explored in collaboration with the Private Sector Operations Department as part of the ensuing loan preparation.

9. The Executing Agency (EA) is the DoH. A Project Management Unit (PMU) has been established headed by a full time Project Director. The PMU will be supported by national consultants for social and environment safeguards, gender and data management. The PMU will coordinate the work of three international consultant-led activities including: (i) the preparation of a HP Horticulture Sector Development Strategy and Investment Plan 2023-2030; (ii) capacity building in DIPH; and (iii) the design of the HP-SHIVA project. Both DoH and DIPH are Implementing Agencies (IA).

10. The financial management arrangements within the project are largely mainstreamed using the regular budgeting, funds flow and the state government treasury accounting and financial rules being applicable to the project. The project, through the PMU, submits regular reports including quarterly progress reports and annual audited project financial reports to the bank (ADB).

#### **D. Minimum Qualification required for the Firm**

11. The firm shall be a firm of Chartered Accountants fulfilling the following eligibility criteria:

- a) It shall be a firm of Chartered Accountants registered with the Institute of Chartered Accountants of India (ICAI);
- b) It must be in continuous practice as Chartered Accountants for at least fifteen (15) years in India and having at least three (3) Chartered Accountants as partners (out of them two must be holding the FCA degree);
- c) It must have its registered head office or a branch office in HP;
- d) Names of all Chartered Accountant team members (*partners and salaried employees*) must be verified from the latest Certificate of Constitution; [*the applicant must attach the latest Certificate of Constitution available from ICAI*];

- e) It must be empaneled with Comptroller and Auditor General for the last three (3) financial years; [*the applicant must attach the latest Letter of Empanelment available from C&AG*];
- f) It should be in the audit profession and have carried out internal audit services of companies/corporate, of government departments/government schemes, and preferably of programs/schemes financed by multilateral development banks like World Bank, ADB, etc.

## **E. Objective**

- 12. The firm engaged shall provide outsourced internal audit services to DoH and DIPH. The purpose of the engagement is to provide additional level of control and oversight over the accounting, internal controls and financial management procedures of DoH and DIPH, with particular focus over the ADB-funded project. The internal auditors shall be appointed by the project Executive Committee (EC), and shall report directly to the EC. The internal auditors so appointed are expected to be, and maintain, their independence throughout the engagement, and shall not provide any additional services to DoH or DIPH, which may impair their independence.
- 13. The auditor will be given access to all project documents including the loan agreements, correspondence, financial records and financial manuals, notices from the Project Management/ Project Implementing Units and any other information associated with the project as deemed necessary by the auditor.

## **F. Services/Scope of Work**

- 14. The internal audit should be carried out in accordance with standards and the guiding principles of the Institute of Internal Auditors (IIA); will follow a risk-based approach; and will include such tests and controls, as the Internal Auditor considers necessary under the circumstances.
- 15. The internal auditor must familiarize itself with the procedures laid down in at least the following: ADB loan/project agreement, Project Administration Manual and ADB loan disbursement handbook.
- 16. The internal audit should be carried out in accordance with
  - a) the Public Sector Internal Auditing Standards (PSIAS) issued by the Chartered Institute of Public Finance and Accountancy (CIPFA);
  - b) guiding principles of the IIA;
  - c) the guidance provided by the Internal Audit Division of the Controller General of Accounts (CGA) under its Generic Internal Audit Manual. These guidelines require that the internal audit follow a risk-based approach, by (i) determining a risk–universe and understanding their key control points, (ii) prioritizing higher risk areas through a cogent and approved annual and 3–yearly audit planning cycle, (iii) focus on processes, systems and related controls, and not on financial transactions.
- 17. An annual audit plan should be prepared, based on a risk assessment, and submitted to the project steering committee for their concurrence. Specific areas of coverage of the internal audit could include the following:

- a) An assessment of the adequacy of the project financial management systems, including internal controls. This would include aspects such as adequacy and effectiveness of accounting, financial and operational control, level of compliance with general financial rules and treasury rules of the state government. Identify areas of significant inefficiencies and high risk in existing systems and suggest necessary remedial measures; b) An assessment of compliance with provisions of financing agreements (ADB Loan Agreement and Project Agreement) especially those relating to accounting and financial matters;
- c) That all external funds received under the project have been used in accordance with the financing agreement, with due attention to economy and efficiency and only for the purposes for which the financing was provided; that civil works, goods and services, including consultancy services, financed have been procured in accordance with the financing agreements and procurement guidelines of the bank;
- d) The budgets are allocated to subprojects in a timely manner and expenditure is as per approved budget and proper budget controls are in place;
- e) Funds flows are adequate and timely and with respect to DoH and DIPH and not used for non-project activities, reconciliation of all project bank accounts is conducted on monthly basis and any reconciliations items are followed up on in a timely manner f) all expenditures including all procurement of works, goods and services funded by ADB, have the necessary supporting documents as outlined in the ADB disbursement handbook and have been incurred in accordance with the national rules and ADB financing agreement;
- f) That all necessary supporting documents, contracts, records, and accounts have been: (i) kept in respect of all project expenditures reported by the implementing units and that these include all supporting documentation as required by the ADB loan disbursement handbook; (ii) systematically filed in a secure location; and (iii) clear linkages exist between accounting records and accounts books and the monthly/quarterly financial reports submitted by such implementing units to PMU;
- g) Status of reconciliation of the accounts maintained by the Treasury and Accountant General (Accounts & Entitlements) [AG (A&E)] as applicable;
- h) That adequate records are maintained regarding assets created and assets acquired by the project, including details of cost, identification and location of assets; and that the physical verification of assets is being done;
- i) With respect to civil works executed, check to ensure that contract registers have been maintained and updated; running bills are properly approved and in agreement with the Measurement Book; advances are properly adjusted and statutory deductions have been made; and
- j) Follow-up on the status of past audit observations and recommendations to ensure timely implementation.

18. The internal auditor will prepare semiannual reports and share it with the project management for their comments before finalization. The report is to include at least the following parts (a) executive summary; (b) audit observations; (c) implications of the observations; (d) suggested recommendations; (e) management's comments/agreed actions and (f) status of actions on the previous recommendations with a detailed table

provided as an annex. The final internal audit report must be submitted to the steering committee no later than 30 days after the end of each six-month period.

19. In addition, the outsourced internal audit firm will prepare an Internal Audit Manual for use by DoH and DIPH, and provide training workshops to the senior management of DoH and DIPH, and relevant accounting staff, to explain the scope and objectives of Internal Audit function, such that DoH and DIPH may consider subsequently co-sourcing, and then allocating resources for an in-house internal audit department. If necessary, the team will also train selected DoH and DIPH staff for potential future co-sourcing or in-house internal audit department.

- a) The internal audit firm will be engaged for an initial period of 36 months (2020-23) and depending upon the performance the contract, may be renewed for further period/(s) i.e. until the completion of project. The audit period would cover systems in place commencing from the first disbursement i.e. May 2020.
- b) Recruitment will be undertaken in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).<sup>1</sup> Firms will be recruited using **quality-and cost- based selection** (QCBS) method with a 90:10 quality to cost ratio. A **bio-data technical proposal** (BTP) will be required. The team will comprise:

<b>Position</b>	<b>Person Months</b> (over a two-year initial contract)
<b>Key Experts</b>	
Partner	6
Audit Manager/Team Leader	9
Audit Assistants	18
<b>Non-Key Experts</b>	
Article/Audit Clerks (at least two numbers)	24

## Attachment B HP-SHIVA: Draft Procurement Plan

### A. Basic Data

Basic Data		
Project Name: Himachal Pradesh Subtropical Horticulture, Irrigation and Value Addition Readiness Project		
Project Number: 53189-001	Approval Number: XXXX	
Country: India	Executing Agency: Department of Horticulture (DoH)	
Project Procurement Classification: N/A	Implementing Agency: Department of Irrigation and Public Health (DIPH) and Department of Horticulture (DoH)	
Procurement Risk: Medium		
Project Financing Amount: \$ 12.5 Million ADB Financing: ▪ Loan \$ 10.00 Million Non-ADB Financing: ▪ Government: \$ 2.5 Million	Project Closing Date: 31/12/2022	
Date of First Procurement Plan 27/05/2020	Date of this Procurement Plan: 19/11/2020	
Procurement Plan Duration: 24 months	Advance contracting: Yes	e-Procurement: Yes

### B. Methods, Review and Procurement Plan

Except as the Asian Development Bank (ADB) may otherwise agree, the following methods shall apply to procurement of goods, works, non-consulting services, and consulting services.

Procurement of Goods, Works and Nonconsulting Services	
Method	Comments
Open Competitive Bidding with national advertising for works	<p>Local contractors are experienced, and the local market is competitive.</p> <p>DOH and DIPH to procure OCB works using e-Procurement system. The e-Procurement system only allows the bidding procedure of 1S2E as per the state procurement guidelines.</p> <p>The first draft English version of the procurement documents should be submitted for ADB review and approval regardless of the estimated contract amount. ADB-approved documents to be used as a model for subsequent OCB with national advertising for works with post review.</p>
Request for quotations (RFQ) for goods and non-consulting services	<p>Plant materials and equipment, agriculture input, furniture, office and agriculture testing equipment are readily available in local market.</p> <p>The first draft English version of the procurement documents should be submitted for ADB review and approval regardless of the estimated contract amount. ADB-approved documents to be used as a model for subsequent RFQ for goods and non-consulting services.</p>
Direct Contracting	Under special circumstances that are detailed in the <i>Procurement Regulations for ADB Borrowers</i> , direct contracting may be



Procurement of Goods, Works and Nonconsulting Services	
Method	Comments
	considered. Proposal for direct contracting needs ADB approval with sufficient justification. <sup>1</sup>

Consulting Services	
Method	Comments
OCB - National advertisement, Quality and Cost Based Selection (QCBS)	To be used for National/International and for Firm/Individual Consultants.  Evaluation methodology – Quality:Cost Ratio 90:10  DOH and DIPH will recruit all consultants.
Individual Consultant Selection (ICS)	DOH and DIPH will recruit all consultants.
Least-cost Selection (LCS)	Well-established practices and standards exist for auditing and construction supervision.
Single source selection (SSS)	Under special circumstances that are detailed in the <i>Procurement Regulations for ADB Borrowers</i> , single source selection or direct contracting may be considered. Proposal for single source selection needs ADB approval with sufficient justification.

### C. Lists of Active Procurement Packages (Contracts)

The following table lists goods, works, nonconsulting, and consulting services contracts for which the procurement activity is either ongoing or expected to commence within the procurement plan's duration.

Goods, Works, and Non-consulting Services							
Package Number	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (Quarter, year)	Comments
CW1	<b>Irrigation Scheme Mandi</b> - Intake Works, Pump House, Pumping Machinery, Collection Tank, Sump Well, Main Delivery Tank, HDPE Distribution System, Supply of Power (Including Solar Power), Metering System	800,000	OCB-National	Prior	1S2E	Q3 2020	- DIPH to procure - Advertising: national newspapers, DIPH website and e-procurement website - 1 contract - Advance contracting
CW2	<b>Irrigation Scheme Hamirpur</b> - Approach Path, Duckbill Headweir, Main Storage Tank, Sump well, Main Delivery Tank, Office for WUA,	230,000	OCB-National	Prior	1S2E	Q3 2020	- DIPH to procure - Advertising: national newspapers, DIPH website and e-procurement website

<sup>1</sup> Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services is accessible at: <https://www.adb.org/sites/default/files/procurement-regulations-adb-borrowers.pdf>

<b>Goods, Works, and Non-consulting Services</b>							
Package Number	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (Quarter, year)	Comments
	Rising Main, Pumping Machinery, HDPE Distribution System, Supply of Power						- 1 contract - Advance contracting
CW3	<b>Irrigation Scheme Bilaspur</b> - Intake Works, Headweir, Sedimentation Tank, Reinforcement Cement Concrete Box Chamber, Office for WUA, Pump House, Pumping Machinery, Main Storage Tank, Sump Well, Main Delivery Tank, HDPE Distribution System, Providing & Fixing Automatic Rope Pulley arrangement with water sensor, Clariflocculator, Reinforcement Cement Concrete Dyke	500,000	OCB-National	Prior	1S2E	Q3 2020	- DIPH to procure - Advertising: national newspapers, DIPH website and e-procurement website - 1 contract - Advance contracting
CW4	<b>Irrigation Scheme Kangra</b> - Approach Path, Storage Tank, Desilting Tank, Sedimentation Tank, Main Delivery Tank, Reinforcement Cement Concrete Main Channel, Road Crossing, HDPE Distribution System, Supply of Power (Including Solar Power, Rising Main, Pumping Machinery	670,000	OCB-National	Prior	1S2E	Q3 2020	- DIPH to procure - Advertising: national newspapers, DIPH website and e-procurement website - 1 contract - Advance contracting
CW6	<b>Water storage tanks and drip irrigation systems</b>	690,000	OCB-National	Prior	1S2E	Q3 2020	- DOH to procure - Advertising: national newspapers, DOH website and e-procurement website - 1 contract - Advance contracting
CW7	<b>Field Preparation</b> including layout planning, land levelling, pit	650,000	OCB-National	Prior	1S2E	Q3 2020	- DOH to procure - Advertising: national newspapers,

<b>Goods, Works, and Non-consulting Services</b>							
Package Number	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (Quarter, year)	Comments
	digging, plastic mulch application						DOH website and e-procurement website - 1 contract - Advance contracting
CW8	<b>Animal proof fencing and installation</b>	700,000	OCB-National	Prior	1S2E	Q3 2020	- DOH to procure - Advertising: national newspapers, DOH website and e-procurement website - 1 contract - Advance contracting
G1	<b>Horticulture Planting Materials</b> – Guava, Litchi, Pomegranate, Citrus	350,000	RFQ-National	Prior	RFQ	Q2 2020	- DOH to procure - Advertising: national newspapers, DOH website and e-procurement website - Advance contracting - Multiple contracts
G2	<b>Computing Software</b>	63,000	RFQ-National	Prior	RFQ	Q3 2020	- DOH to procure - Advertising: national newspapers, DOH website and e-procurement website - 1 contract
G3	<b>Horticulture input</b> - fertilizer, fungicides, biopesticides, other chemicals	280,000	RFQ-National	Prior	RFQ	Q3 2020	- DOH to procure - Advertising: national newspapers, DOH website and e-procurement website - Multiple contracts - Advance contracting
G4	<b>Farm equipment</b>	85,000	RFQ-National	Prior	RFQ	Q3 2020	- DOH to procure - Advertising: national newspapers, DOH website and e-procurement website - 1 contract
G5	<b>Office furniture, equipment and</b>	420,000	RFQ-National	Prior	RFQ	Q3 2020	-DOH to procure

<b>Goods, Works, and Non-consulting Services</b>							
Package Number	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (Quarter, year)	Comments
	<b>materials</b> , PMU Field Equipment (including tablets for Project field level M&E recording, GPS devise)						- Advertising: national newspapers, DOH website and e-procurement website - 4 contracts
G6	<b>Vehicle</b> - Sedan (qty=1) and seven-seater four-wheel drive vehicle (qty=11)	190,000	RFQ-National	Prior	RFQ	Q3 2020	- DOH to procure - Advertising: national newspapers, DOH website and e-procurement website - 2 contracts

ADB = Asian Development Bank, CHDMA = Community horticulture production and marketing association, CMS = Consultant Management Service, CS = consulting services, DIPH = Department of Irrigation and Public health, DOH = Department of Horticulture, OCB = open competitive bidding, PMU = Project Management Unit, Q = quarter, QCBS = Quality and Cost Based Selection, RFQ = request for quotation

<b>Consulting Services</b>							
Package Number	General Description	Estimated Value (\$)	Selection Method	Review	Type of Proposal	Advertisement Date (Quarter, year)	Comments
CS1	<b>Construction Supervision</b> – National	150,000	LCS	Prior	BTP	Q3 2020	- DIPH to recruit
CS2	<b>PMU consultants</b> (7 positions) – National, individual	800,000	ICS	Prior	EOI	Q3 2020	- DOH to recruit - Multiple contracts
CS3	<b>Horticulture sector strategy and investment plan 2023-2030 preparation</b> – International and National	380,000	QCBS	Prior	STP	Q3 2020	- DOH to contract (selection assisted by ADB) - 90:10 ratio
CS4	<b>Packages of Practice (PoPs) development and testing</b>	80,000	SSS	Prior	BTP	Q3 2020	- DOH to contract - University to be contracted
CS5	<b>DOH capacity building</b> – Subtropical horticulture production specialist, International	73,000	ICS	Prior	EOI	Q3 2020	- DOH to recruit - 90:10 ratio
CS6	<b>DIPH capacity building</b> (hydrology, irrigation, natural resource management) – 2 International and 1 National	350,000	QCBS	Prior	BTP	Q3 2020	- DIPH to recruit - 90:10 ratio
CS7	<b>WUA facilitation</b> -	800,000	QCBS	Prior	BTP	Q3 2020	- DIPH to

	National (PRF + 40% areas of the ensuing loan) (PRF including each facilitator at the district level)						recruit - 90:10 ratio
CS8	<b>CHPMA facilitation</b> – marketing and production- group and horticulture commodity cluster development and marketing/PoP training – National (PRF + 40% areas of the ensuing loan)	840,000	QCBS	Prior	BTP	Q3 2020	- DOH to recruit - 90:10 ratio - Multiple contracts (including at least 40% of the ensuing loan area) - in the PRF areas, 2-3 clusters per facilitator (due to COVID and distance between clusters) - in the ensuing loan, 3 clusters per facilitator
CS9	<b>HP-SHIVA (ensuing loan) preparation for DOH and DIPH</b>	1,200,000	QCBS	Prior	STP	Q3 2021	- DOH to contract - 90:10 ratio - Firm, International/ National
CS10	<b>Internal auditing- National</b>	20,000	LCS	Prior	BTP	Q4 2020	-DOH to contract -Chartered accounting firm

BTP = Biodata technical proposal, CHDMA = Community horticulture production and marketing association, DIPH = Department of Irrigation and Public Health, DOH = Department of Horticulture, EOI = expression of interest, HP-SHIVA = Himachal Pradesh Sub-tropical Horticulture, Irrigation and Value Addition Project, ICS = individual consultant selection, PMU = project management unit, Q = quarter, QCBS = quality- and cost-based selection; RFQ = request for quotation, SSS = single source selection, STP = simplified technical proposal.

#### D. List of Indicative Packages (Contracts) Required Under the Project

The following table lists goods, works, nonconsulting, and consulting services contracts for which procurement activity is expected to commence beyond the procurement plan duration and over the life of the project (i.e., those expected beyond the current procurement plan's duration).

Goods, Works, and Non-consulting Services							
Package Number	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (Quarter, year)	Comments
CW5 (removed from the earlier)	<b>Nursery technical development</b>	300,000	OCB- National	Prior	1S2E	Q2 2021	- DOH to procure - Advertising: national newspapers,

PP)							DOH website and e-procurement website - Multiple contracts
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Consulting Services							
Package Number	General Description	Estimated Value (\$)	Selection Method	Review	Type of Proposal	Advertisement Date (Quarter, year)	Comments
CS11	<b>Various government studies</b> for loan design	100,000 (depending on needs)	ICS	Prior	EOI	Q3 2021	-DOH to contract - 1 TORs identified and more consultant needs-based

## E. Lists of Awarded and Completed Contracts

The following table lists the awarded and completed contracts for goods, works, nonconsulting, and consulting services.

Goods, Works, and Non-consulting Services							
Package Number	General Description	Estimated Value (\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (Quarter, year)	Comments
-NA-							

Consulting Services							
Package Number	General Description	Estimated Value (\$)	Selection Method	Review	Type of Proposal	Advertisement Date (Quarter, year)	Comments
-NA-							

## F. Non-ADB Financing

The following table lists goods, works, nonconsulting, and consulting services contracts over the life of the project, financed by non-ADB sources.

Goods, Works, and Non-consulting Services				
General Description	Estimated Value (\$)	Estimated Number of Contracts	Procurement Method	Comments
-NA-				

**Loan: xx**  
**Quarterly Progress Report**  
**(January–March 20xxx)**

**Executing and Implementing Agency**

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Chapter 3	Status of Input(s) (Procurement and Consultant Recruitment)
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Chapter 6	States of Major Loan Covenants
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Chapter 8	Financial Management
Attachment 1: Status of Ongoing Contract Packages Attachment 2: Status Consultants Staffing Attachment 3: Consultants' Performance Evaluation Report Attachment 4: Detailed reconciliation (by Withdrawal application) of project records and ADB disbursement records (LFIS/GFIS) for the fiscal year to date and cumulative Attachment 5: Status of Financial Management action plan (completed/ongoing) Attachment 6: Status of past audit observations (resolved/ pending)	



## CHAPTER 1 PROJECT AT A GLANCE

Brief project description to be filled by project team (one-time entry; to be update only in case of change)

### 1. LOAN MILESTONE

Milestone	Approval	Signing	Effective	Orig. Closing	Rev. Closing
Dates					
Extensions (Nos)				Time Remaining	

### 2. LOAN UTILIZATION STATUS (\$MILLION)

Cat.	Description	Allocation	Contracts	Unutilized loan balance	Disbursed	Undisb. Contract balance	Overall Undisbursed
		(a)	(b)	(c) =(a-b)	(d)	(e)=(b-d)	(f)=(a-d)

### 3. POTENTIAL LOAN SAVINGS (IF ANY) AND LIKELY CANCELLATION DATE.

### 4. STATUS OF COUNTERPART FUNDS (\$ MILLION)

Required Counterpart Expenditure by the Executing Agency	Budgeted by State Govt. in Current Financial Year	Actual Amount Released	Shortfall /Excess
1.Non-reimbursables Activities fully funded by the executing agency (LA/R&R etc)			
2. Reimbursable (from loan)			

### 5. STATUS OF CONTRACT AWARDS AND DISBURSEMENTS (\$ MILLION) IN CY XXXX

Indicator	Quarter	I	II	III	IV	Total
Contract Award	Target					
	Achieved					
	Balance					
Disbursement	Target					
	Achieved					
	Balance					

[Targets – for the ADB financing compare the actual disbursement with the disbursement projections as per the S curve included in the PAM), Include an analysis of significant variances between planned and actual disbursements; and]

### 6. STATUS OF PROJECT REPORTS TO BE SUBMITTED TO ADB

Type of Reports	Frequency	Due Date	Status
Environmental Monitoring Report			
Social Monitoring Report			
Audited Project Accounts			
Gender Action Monitoring Report			

## CHAPTER 2 STAFFING

### A. STATUS OF PMU/PIU STAFFING

1 a	Is the Project Director (PD) currently posted?	Yes/ No	Nature of PD posting	Part Time/Full Time
1 b	Current PD is posted since when?	xx		
2 a	No. of PMU staff as agreed with ADB or as per Org Structure in PAM/FAM/RRP.	xx	Actual no. of PMU staff in place at present.	
			Full Time	
			Additional Charge	
2 b	Details of PMU Positions which are currently vacant.	-		
3 a	Are PIUs required to be established in the Project?	Yes/ No	Are PIUs fully staffed	
3 b	No. of PIUs required as agreed with ADB in Org Structure in PAM/FAM/RRP	11	Actual no. of PIUs	

### B. MOBILIZATION STATUS OF CONSULTANT'S STAFFING (KEY EXPERT POSITIONS) AND THEIR PERFORMANCE

(Please provide your overall feedback in narrative statement e.g. key issues overall performance etc. and attach staffing status and Consultant's Performance Evaluation Report (PER): Attachment 2 & 3)

### CHAPTER 3 STATUS OF PROCUREMENT & CONTRACT MANAGEMENT

#### A. Status of Contracts Awarded

Cost Category under which Procurement is carried out	ADB Financing	Cumulative Contract Awards	Uncontracted Loan Balance	Cumulative Disbursements
Civil Works	\$..... million	\$..... million (xx Pkgs awarded)	\$..... million	\$..... million
Equipment	\$..... million	\$..... million (xx Pkgs awarded)	\$..... million	\$..... million
Consultants	\$..... million	\$..... million (xx Pkgs awarded)	\$..... million	\$..... million
<b>Total</b>	<b>\$.... million</b>	<b>\$..... million</b>	<b>\$..... million</b>	<b>\$..... million</b>

(Please attach Contract Monitoring Sheet indicating status of each of the awarded contracts in Attachment 1)

#### B. Status of Remaining Procurement

S N	Component	Remaining Contract Packages			
		No of pkgs with cost	Brief Scope	Current Stage	Target Date of Award
1	Civil Works	xx (\$... million)	km of road rehabilitation/ house service connections in xx towns	- IFB to be issued - Under Tech Evaluation - Under Fin. Evaluation - Under Contract Negotiation - Under Contract Signing	MM/YYYY
2	Equipment	xx (\$...million)			MM/YYYY
3	Consultants	xx (\$...million)			MM/YYYY
	<b>Total xx Packages</b>	<b>\$xx million</b>			<b>(Target date of the latest procurement)</b>

**CHAPTER 4**  
**PROGRESS ON PROJECT OUTPUTS (AS IN DMF)**

Output	Monitoring Indicators/Targets	Progress		Remarks
		Last Quarter	Current Quarter	

*Detailed status of ongoing contracts is in Attachment 1.*

**CHAPTER 5**  
**STATUS OF ACTION PLAN**

(Please include issues previously discussed during previous  
*ADB Review Missions/TPRM/Progress Report* and their compliance/status)

SN	Issues/ Action Plan	Responsibility	Time Frame	Status

**CHAPTER 6**  
**COMPLIANCE WITH MAJOR COVENANTS**

S.N.	Covenants	Compliance (Y/N) *	Remarks
1			
2			
3			
4			
5			
6			

*\*In case of any exceptions, deviations, non-adherence identified, please provide details as an “Annexure” to the Quarterly Project Report highlighting the shortcomings and proposed time-bound corrective action plans to achieve compliance.*

**CHAPTER 7**  
**(KEY IMPLEMENTATION ISSUES/ CHALLENGES**  
**AFFECTING PROJECT PROGRESS AND PROPOSED ACTIONS)**

S.N.	MAJOR ISSUES*	Actions	Responsibility	Time Frame
1	<b>Planning Issues.</b> (Change in design/scope/implementation arrangement/cost overrun/staffing.....)			
2	<b>Contract and Construction Issues.</b> Mobilization of Contractor(s)/ Issuance of Good for construction drawings/ Utility Sifting /Handing over site/ variations order etc. /Pending Payments			
3.	<b>Safeguard issues during Construction</b> (Land acquisition / Resettlement /tree cutting/ to the contractor(s))			
4.	<b>Other Issues.</b>			

*\*In case issue identified, please provide details e.g. details of change in design/ implementation arrangements, pending safeguards actions, encumbrance free sites to be handed over to the contractor (numbers/kilometer) with targeted date by which the same could be handed over to the contractor; If all Drawings/Design are not issued/approved, name of such Drawings/Design and targeted date by which the same could be handed over to the contractor; Decision pending with employer and consultants (such decision could be approval of, variations, extra item rate, etc.)*

## **CHAPTER 8**

### **(FINANCIAL MANAGEMENT AND RECONCILIATION WITH ADB DISBURSMENT RECORDS)**

#### **A. Reconciliation of Project records and ADB's disbursement records.**

1. [Include here a summary reconciliation of project records and ADB disbursement records (LFIS) for the reporting period and cumulative from project inception to end of the reporting period.
2. Explain reasons for discrepancies and outline follow-up actions required (if any). Attach a detailed reconciliation by withdrawal application as per Attachment 4.

#### **B. Status of the project's Financial management arrangements**

3. Here include the following:
  - (i) Describe any problems in the existing financial management arrangements and /or flow of funds and any significant changes occurred during the reporting period (e.g., financial management staff turnover, implementation of new financial systems, emerging financial management related risks etc..).
  - (ii) Summarize the status of each agreed action in the financial management action plan outlined in the PAM. Attach a detailed log as per Attachment 5].
  - (iii) Outline the status of recommendations and immediate actions provided by ADB as part of the APFS/AEFS review (if any) and financial management related recommendations agreed during ADB review missions (if any).
  - (iv) Summarize the status of Status of past audit observations (if any). Attach a detailed log as per Attachment 6.



**Attachments:**

Attachment 4. Detailed reconciliation (by Withdrawal application) of project records and ADB disbursement records (LFIS/GFIS) for the fiscal year to date and cumulative.										
WA details			Per project records/APFS (Amount recorded in the project Financial statements as reimbursement, direct payment, etc..)				Per ABD disbursement records LFIS/GFIS (actual Paid)			
Withdrawal application No (WA)	Disbursement method (reimbursement, direct payment, etc..)	Time period covered in the WA	Date	In local currency (as recorded in project records/ financial statements)	exchange rate	USD equivalent (A)	Value date	In USD (B)	Difference (A-B)	Reason for difference (i.e. timing forex. Pending rejected)
1		1-31.3.2020	XX			XX		XX		
2			XX			XX		XX		
3			XX			XX		XX		
etc..										
<b>Total in Fiscal year to date</b>				XX		XX		XX		
<b>Total Cumulative to date</b>				XX		XX		XX		

Attachment 5: Status of Financial Management Action Plan					
Key Risk	Risk Mitigating Activity	Timeline	Responsible Entity	Current status (implemented/Pending)	Remarks (including planned actions and timeline in case of noncompliance)

Attachment 6: Status of external audit observations – Cumulative from inception to end of reporting period						
Recommendation/audit observation	external audit recommendation	Date of the recommendation	Planned action to address the recommendation	Responsibility	Current Status of the planned action (pending/resolved)	Remarks

## Annex XX. Indicative Project Financial statements

1. Statement of Receipts and Payments for the year ended DD/MM/YYYY							
	Notes	Current year		Previous year		Cumulative (from inception to the end of current year)	
		Cash Receipts/Payments controlled by the entity	Direct/third party payments	Cash Receipts/Payments controlled by the entity	Direct/third party payments	Cash Receipts/Payments controlled by the entity	Direct/third party payments
Cash receipts							
ADB loan (loan number)	3.1						
ADB grant (grant number)	3.2						
ADB Additional loan (loan number)	3.3						
ADB additional Grant (grant number)	3.4						
Government of Bhutan	3.5						
etc..							
Total receipts							
Payments	4						
Expenditure category 1	4.1						
Expenditure category 2	4.2						
Expenditure category 3	4.3						
Expenditure category 4							
etc..							
Total payments							
Cash balance at the beginning of the year	6.1						
Cash balance at the end of the year	6.2						

Project Director:  
[Signature]

Finance  
[signature]

Manager:

## 2. Statement of Budget vs. Actual for the year ended DD/MM/YYYY

[illegible]

Total Payments				
Total Project Cost				

\*any significant variances are to be explained in the notes

Project Director:  
[Signature]

Finance Manager:  
[signature]

### 3. Statement of Disbursement By Financing Source for the year ended DD/MM/YYYY

Statement of Disbursement	Note	Current Year	Prior Year	Cumulative Project to Date
<b>ADB grant - Funds claimed during the year</b>	7.1			
Reimbursement <sup>3</sup>				
Imprest Fund <sup>3</sup>				
Direct Payment				
<b>Subtotal</b>				
<b>ADB Loan - Funds claimed during the year</b>	7.2			
Reimbursement <sup>3</sup>				
Imprest Fund <sup>3</sup>				
Direct Payment				
<b>Subtotal</b>				
<b>ADB additional Loan - Funds claimed during the year</b>	7.3			
Reimbursement <sup>3</sup>				
Imprest Fund <sup>3</sup>				
Direct Payment				
<b>Subtotal</b>				
<b>ADB additional Grant Funds claimed during the year</b>	7.4			
Reimbursement <sup>3</sup>				
Imprest Fund <sup>3</sup>				
Direct Payment				
<b>Subtotal</b>				

\*list of WAs/claims submitted to be disclosed in the notes

Project Director: [Signature]

Finance Manager:  
[signature]

**4. Statement of Imprest/Advance account for the year/period ended DD/MM/YYYY (for each advance account separately)**

Account details: XXXX			
	Notes	Current Year	Prior Year
Balance brought forward from previous period			
Add: Advance <sup>1</sup> Replenishment received during the year/period <sup>1</sup> Interest Earned			
Subtotal (A)			
Deduct: Payments made during the year/period Replenishment /Liquidation <sup>1</sup> Expenditure yet to be claimed  Amount refunded during the year/period			
Closing Balance (B)			
As per bank statement (copy attached)			

Project Director: [Signature]

Finance Manager: [signature]

# NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED [YEAR END DATE]

## **1. Project Information**

### **1.1 Key highlights:**

*Project title*

*Funded by:*

*Management:*

*Executing Agency*

*Implementing agencies*

*Start Date:*

*Closing date:*

*Project Duration:*

*Funding Sources/modality/amount*

### **1.2 Impact and Outcome**

## **2. Summary of Significant Accounting policies.**

*2.1 Basis of preparation*

*2.2. Cash Basis of accounting*

*2.3. Recognition of Receipts and payments*

*2.4. Third party payments*

*2.5. Presentation currency*

*2.6 Foreign Currency Translation*

*2.7. Changes in Accounting policies*

*2.8 Reporting period*

*2.9 Comparatives*

## **3. Funds received**

*3.1 -3.4 Funds received from ADB /List of WAs by financing source*

*3.5 Funds received from the Government*

*3.6. funds received from Other*

*etc..*

## **4. Payments**

*List of Payments from the advance account/sub-advance account.*

*List of third-party payments/direct payments.*

## **5. Variances**

*List and explain any significant variances between budget and actual expenditures*

## **6. Opening and closing balances**

*List details of the opening balances*

*List details of the closing balances*

## **7. Disbursements/Withdrawal Applications**

*Include detailed list of WAs claimed from ADB with the following breakdown : i) funding source (ADB loan, ADB grant, ADB additional loan, ADB additional grant), ii) WA number, iii) time period in which expenditures were incurred iv) the amount claimed and currency, v) date submitted, vi) disbursement method, vii) the amount disbursed by ADB and vii) used exchange rate.*

## **8. Special notes for the FY**

*Disclose a break down Interest Expenses/ Financial Charges incurred as part of the project for the current year, past year and cumulatively.*

DRAFT



## **Terms of Reference for Audit of ADB assisted projects by Comptroller and Auditor General of India**

### **Background:**

ADB provides assistance in the form of Loan and/or Grant for the implementation of project and/or program by the executing agencies (EA) identified by the central/state government. In order to facilitate the same, a loan/grant agreement is executed between ADB and central government for each individual loan/grant and a project agreement is executed between ADB and the executing agency for each project/sub-project. The disbursement of loan is governed by the ADB Loan Disbursement Handbook which provides for various disbursement procedures viz, Direct payment procedure, Reimbursement procedure, Commitment Letter procedure and Imprest Account procedure. The project agreement stipulates that the executing agency shall (i) maintain separate accounts for the project and if the executing agency is revenue earning, then for its overall operations also (ii) have such accounts and related financial statements<sup>1</sup> (balance sheet, statement of income and expenses and related statements) audited annually, in accordance with appropriate auditing standards consistently applied, by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB; and (iii) furnish to ADB, promptly after their preparation but in any event not later than six (6) months (or 9 months if specifically approved) after the close of the fiscal year to which they relate as applicable, certified copies of such audited accounts and financial statements and the report of the auditor relating thereto (including the auditor's opinion on the use of loan proceeds and compliance with the covenants of the loan/grant agreement as well as on the use of the procedures for Imprest Account, Second Generation Imprest Account (SGIA), Statement of expenditures (SOE), Force Account Works and Simultaneous Application for sub-loan approval and Withdrawal (SAW)), where applicable, all in the English language.

The executing agencies for all sovereign loans are subject to audit by the Comptroller and Auditor General of India (Supreme Audit Institution of the country). In order to comply with the requirement of audit as referred in above para, the following terms of reference should be pursued with respect to the loan/grant/project agreement executed for availing the ADB's assistance.

### **Objective:**

Article 14(xi) of the Agreement establishing the Asian Development Bank (The Charter) States that 'Proceeds of any loan made, guaranteed, or participated by the Bank are used only for the purposes for which the loan was granted and with due attention to consideration of economy and efficiency'. In addition, Article 14(xiv) of the Charter requires ADB to be guided by sound banking principles in its operations. To fulfill the requirements of Article 14 (xi) and (xiv) of the Charter, ADB requires borrowers/project executing agencies to submit audited Project accounts (APA) and audited financial statements (AFS).

ADB requires the borrower and the project EA to have the required financial statements for each year audited by an independent auditor acceptable to ADS, and in accordance with standards on auditing that are acceptable to ADB. An audit of such financial 'statements includes: (i) an assessment of the adequacy of accounting and internal control systems with respect to project expenditures and other financial transactions, and to ensure safe custody of project financed assets, (ii) a determination as to whether the borrower and project implementing entities have maintained adequate documentation on all relevant transactions, including statement of expenditures (SOE), Force Account Works and Simultaneous Application for sub-loan approval and Withdrawal (SAW)) where applicable, (iii) confirmation that expenditures submitted to ADB are eligible for financing and identification of any ineligible expenditures, (iv) compliance with loan/grant covenants and ADB's requirements for project management and (v) compliance with the use of procedures for Imprest Account

---

<sup>1</sup> Preparation of balance sheet, statement of income and expenditure shall depend on the legal status of the project executing/implementing agency and shall apply to autonomous bodies or corporation until extended legally to other types of organization such as government departments.

(IA)/Second Generation Imprest Account (SGIA)/SOE/force account works/SAW, where applicable.

The objective of the audit of the Project Financial Statement (PFS) is to enable the auditor to express a professional opinion as to whether (i) the PFS present fairly, in all material respects, the sources and applications of project funds for the period under audit examination, (ii) the funds were utilized for the purposes for which they were provided, (iii) loan covenants have been complied with and (iv) expenditures shown in the PFS are eligible for financing under the relevant loan/grant agreement. In addition, where applicable, the auditor will express a professional opinion on the use of the procedures for IA, SGIA, SOE, Force Account Works and SAW and whether adequate supporting documentation has been maintained to support claims made by project management for reimbursement of expenditures incurred under the SOE, Force Account Works and SAW method of reimbursement where applicable.

The books of account that provide the basis for preparation of the PFS are established to reflect the financial transactions of the project and are maintained by the project executing/implementing agency – [ ] Project Implementation unit and the participating divisions.

### **Standards:**

The audit will be carried out in accordance with the Auditing Standards promulgated by the Comptroller and Auditor General of India. The auditor should accordingly consider materiality when planning and performing the audit to reduce audit risk to an acceptable level that is consistent with the objective of the audit. Although the responsibility for preventing irregularity, fraud, or the use of loan/grant proceeds for purposes other than as defined in the legal agreements remain with the borrower, the audit should be planned so as to have a reasonable assurance of detecting material misstatements in the PFS.

### **Scope:<sup>2</sup>**

In conducting the audit, special attention should be paid to the following:

- (a) All external funds have been used in accordance with the conditions of the relevant legal agreements and only for the purposes for which the financing was provided. Relevant legal agreements include the Loan/Grant Agreement, the Project Agreement, and the Minutes of Negotiations;
- (b) Counterpart funds have been provided and used in accordance with the relevant legal agreements and only for the purposes for which they were provided;
- (c) Financial covenants of the loan agreement have been complied with
- (d) All necessary supporting documents, records, and accounts have been kept in respect of all project transactions including expenditures reported via SOEs/IAs/SGIAs/Force Account Works/SAW where applicable. Clear linkages should exist between the books of account and reports presented to the ADB; and
- (e) The project accounts have been prepared in accordance with consistently applied Government Accounting Standards<sup>3</sup> and present fairly, in all material aspects, the financial situation of the project at the year end and of resources and expenditures for the year ended

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<sup>2</sup> In response to identified project risks, the scope may be expanded to include a report or the expression of an opinion on specific aspects of the operation such as internal controls, compliance with Bank procurement policies, or efficiency and effectiveness in the use of loan/grant proceeds.

<sup>3</sup> Until such time as the pronouncements of the Government Accounting Standards Advisory Board are accepted and prescribed by the Ministry of Finance, the Accounting Standards followed by the Government of India will be defined by the General Financial Rules, PWD codes; Treasury codes and similar financial rules and codes as are in effect and applicable to the operations of the project.

on that date.

### **Project Financial Statements:**

The contents of Project Financial Statements (PFS) are specific to the sector, the project design and the type of implementing entity. These formats therefore vary from one project to another. The formats of PFS are prepared in consultation with the implementing entity during the preparation of the project.

The Project Financial Statements should include:

- A. In a nonrevenue-earning entity, or for the audit of project accounts, the annual financial statement may consist of the Statement of Receipts and Payments on project transactions. Other schedules of value or cumulative expenditures by category such as civil works, equipment, consultancy services, training and capacity building, administrative costs, expenditure by financier, statement of disbursement under SOE procedure, imprest account, cumulative work-in-progress, assets and inventories and a summarized reconciled bank statement are to be attached. See Annexure 1-8 for examples of reporting formats that could be prepared for a project implemented by core government departments.
- B. For a revenue-earning entity, a balance sheet, income statement and cash flow statement accompanied by supplementary statements or schedules supporting the basic statement (e.g., inventories, schedule of assets, outstanding loans, aging of receivables, etc:).
- C. Statement of Disbursement: The PFS include a reconciliation between expenditure reported as per the statement of sources and application of funds and expenditure claimed from ADB through SOE, documented claims (direct payment and reimbursement), commitment letter procedure, force account works or SAW where applicable. An example is shown at Annexure 3.
- D. Other statements or schedules as may be applicable in particular circumstances and as specified in the relevant loan/grant agreements. In particular, Statement of Appropriation Vs. Actual (Annexure 9) and Statement of Expenditure by Output (Annexure 10) shall be prepared and prepared to the project financial statements. These statements shall not be subject to audit.
- E. Management Assertion: Management should sign the PFS and provide a written acknowledgement of its responsibility for the preparation and fair presentation of the financial statements and an assertion that project funds have been expended in accordance with the intended purposes as reflected in the financial statements. An example of a management assertion letter is shown at Annexure 11.

### **Statement of Expenditure (SOE), Imprest Account (IA), Second Generation Imprest Account (SGIA), Force Account Works, Simultaneous Application for Sub-Loan Approval and Withdrawal (SAW):**

During the course of the audit of the PFS, the auditor is required to audit all SOE, IA, SGIA, Force Account Works and SAW for withdrawal applications made during the period under audit examination. The auditor should apply such tests as the auditor considers necessary under the circumstances to satisfy the audit objective. In particular, these expenditures should be carefully examined for project eligibility by reference to the relevant financing agreements. Where ineligible expenditures<sup>4</sup> are identified as having been included in withdrawal applications and reimbursed against, these should be separately noted by the auditor.

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<sup>4</sup> Refer to ADB's Operation Manual (OM) Section H3 and Safeguard Policy Statement

## **Audit Report**

An audit report on the PFS should be prepared in accordance with the Auditing Standards promulgated by the Comptroller and Auditor General of India. Those standards require an audit opinion to be rendered related to the financial statements taken as a whole, indicating "unambiguously whether it is unqualified or qualified and if the latter, whether it is qualified in certain respects or is adverse or a disclaimer of opinion". In addition, the audit opinion paragraph will specify whether, in the auditor's opinion, (a) loan proceeds have been used as covenanted in ADB Loan / Project Agreement (b) financial covenants of loans have been complied with (c) with respect to SOEs, Force Account Works and SAW, where applicable, adequate supporting documentation has been maintained to support claims to ADB for reimbursement of expenditures incurred; and (d) except for ineligible expenditures as detailed in the audit observations, if any, appended to the audit report, expenditures are eligible for financing under the Loan/Grant Agreement. Relevant CAG Auditing Standards are reproduced in Annexure 12. A sample audit report wordings for unqualified opinion is shown at Annexure 13.

The PFS and the audit report should be received by ADB not later than six (6) months (or 9 months if specifically approved) after the close of the fiscal year to which they relate as specified in the loan/project agreement. The auditor should also submit two copies of the audited accounts and audit report to the Implementing Agency.

The audit report is issued without prejudice to CAG's right to incorporate the audit observations in the Report of CAG of India for being laid before Parliament / State or UT Legislature.

## **Management Letter**

In addition to the audit report on the PFS, the auditor may prepare a management letter containing recommendations for improvements in internal control and other matters coming to the attention of the auditor during the audit examination. Where such a management letter is prepared by the auditor, a copy of the same will be supplied to ADB. Else, a written advice may be made that no management letter was prepared together with the audit report on the PFS.

## **General**

The auditor should be given access to any information relevant for the purposes of conducting the audit. This would normally include all legal documents, correspondence, and any other information associated with the project and deemed necessary by the auditor. The information made available by the auditor should include, but not be limited to, copies of ADB's project appraisal document, the relevant legal agreements, a copy of these guidelines and a copy of ADB's financial management assessment of the project entity. It is highly desirable that the auditor become familiar with other ADB policy document such as ADB guidelines on financial management and analysis of projects chapter 5 title reporting and auditing, PAI 5.07 on submission of audited project accounts and financial statements, OM section J7/BP on project accounting, financial reporting and auditing. The auditor should also be familiar with ADB's Loan Disbursement Handbook – July 2012 (or as amended from time to time).



Name of the Executing Agency  
Name of the Implementing Agency  
Name of the Project  
Loan/Grant No.

**STATEMENT OF RECEIPTS AND PAYMENTS**  
**REPORT FOR THE YEAR/PERIOD ENDED XX, XXXX**

in (INR) '000

Particulars	Note Reference	During the Current Year for 12 month period	During the Previous Year for 12 month period	Cumulative Project to Date As at [end of CURRENT year]
<b>Opening balance<sup>1</sup> (A)</b>				
<b>Receipts</b>				
Funds received from Government <sup>2</sup>	4			
ADB Loan <sup>3</sup>	6			
ADB Grant <sup>3</sup>	6			
Co-financier 1	7			
Co-financier 2	8			
Beneficiary contribution (if any)	9			
Other receipts such as interest income, sale from disposals of fixed assets, etc.	10			
<b>Total Receipts (B)</b>				
<b>Total (C = A + B)</b>				
<b>Payments</b>				
<b>Investment Costs<sup>4</sup></b>	11			
Civil Works				
Mechanical and Equipment				
Environment and Social Mitigation				
Consultants				
a. Project Management				
b. Capacity Development				
Others				
<b>Subtotal (D)</b>				
<b>Recurrent Costs</b>	12			
Salaries				
Accommodation				
Equipment Operation and Maintenance				
Others				
<b>Subtotal (E)</b>				
<b>Total Payments</b>				
<b>Financing Charges During Implementation (F)</b>	13			
<b>Total Project Cost (G = D + E + F)</b>				
<b>Closing Balance (C – G)</b>				

<sup>1</sup> If cash balance are controlled by the entity, indicating cash balance, imprest account and SGIA balance separately

<sup>2</sup> These will include external assistance received by Government for the project.

<sup>3</sup> This shall include amounts received in the Bank Account as well as amounts deemed to be received against direct payments made by ADB to the suppliers of goods and services under Direct Payment procedure and Commitment Letter procedure

<sup>4</sup> Expenditure categories are based on the cost allocation table as per Loan/Grant Agreement

Notes 1 to x of the financial statements form an integral part of these financial statements

Name of the Executing Agency  
Name of the Implementing Agency  
Name of the Project  
Loan/Grant No.

**STATEMENT OF EXPENDITURE BY CATEGORY AND FINANCIER**  
**REPORT FOR THE YEAR/PERIOD ENDED XX, XXXX**

in (INR) '000

Particulars	ADB <sup>4</sup>			Co-Financier		Government		Total Expenditure 8
	Percentage of financing <sup>1</sup> 1	Actual Expenditure		Actual Expenditure		Actual Expenditure		
		Amount 2	% 3	Amount 4	% 5	Amount 6	% 7	
<b>Investment Costs<sup>2</sup></b>								
Civil Works								
Mechanical and Equipment								
Environment and Social Mitigation								
Consultants								
Project Management								
Capacity Development								
Others								
<b>Subtotal (A)</b>								
<b>Recurrent Costs</b>								
Salaries								
Accommodations								
Equipment Operations and Maintenance								
Others								
<b>Subtotal (B)</b>								
<b>Total Cost (C=A+B)<sup>3</sup></b>								
<b>%Total Project Cost</b>								
<b>Total Project Cost for [insert prior year period]</b>								

<sup>1</sup> The financing percentages for ADB funds should directly correlate to the financing percentages in the allocation table(s) of the financing agreement(s).

<sup>2</sup> Expenditure categories are based on the cost allocation table as per Loan/Grant Agreement

<sup>3</sup> The figures shown against various categories of expenditure should agree with the current year's payment in Annexure 1, Statement of Receipts and Payments.

<sup>4</sup> This shall include total expenditure claimed from ADB under various disbursement procedures, i.e. direct payment, reimbursement, imprest account and commitment letter.

Notes 1 to x of the financial statements form an integral part of these financial statements

**Name of the Executing Agency**  
**Name of the Implementing Agency**

**[NAME OF THE ENTITY/PROJECT]**

**Loan/Grant No.**

**FOR THE YEAR ENDED [YEAR END DATE]**

**Statement of Disbursement**

Details of the disbursement by method are given below:

in (INR) '000

<b>Statement of Disbursement</b>	<b>Note</b>	<b>Current Year</b>	<b>Prior Year</b>	<b>Cumulative Project to Date</b>
<b>ADB Fund claimed during the year</b>				
Reimbursement <sup>3</sup>	6.1	10		
Imprest Fund <sup>3</sup>	6.2	10		
Direct Payment	6.3	10		
Commitment Letter	6.4	10		
<b>Subtotal</b>	(A)	40		
<b>Total Expenditure made during the year<sup>1</sup></b>	(B)			
Less:				
Expenditure not yet claimed	(C)			
Borrower's share <sup>2</sup>	(D)			
<b>Total Eligible Expenditure claimed (B – C – D = E = A)</b>	(E)			

<sup>1</sup> The total expenditure as per Statement of Receipts and Payments.

<sup>2</sup> This should tally with the Government share included in Statement of Expenditure by category and financier (Column 6)

<sup>3</sup> Includes both claims using SOE and full supporting documentation

Notes 1 to x of the financial statements form an integral part of these financial statements



**[NAME OF THE COUNTRY/IMPLEMENTING AND EXECUTING AGENCY]  
[NAME OF THE ENTITY/PROJECT]  
[ADB LOAN REFERENCE]  
NOTES TO THE FINANCIAL STATEMENTS  
FOR THE YEAR ENDED [YEAR END DATE]**

1. Project Nature and Activities

1.1 *Description of the Project, the nature of activities, commencement and expected completion dates. Mention location, domicile, legal form, controlling IA/ EA, brief nature of the project outputs,*

1.2 Give legislative framework

*Insert as relevant*

2. STATEMENT OF COMPLIANCE

These financial statements have been prepared in accordance with approved accounting standards, as applicable in India. This refers to the cash basis of accounting applied with due regard to the General Financial Rules, PWD Codes, Treasury Codes, and similar financial rules and codes as are in effect and applicable to the operations of the Project.

3. SIGNIFICANT ACCOUNTING POLICIES

3.1 Financial Statements

This comprises of the Statement of Receipts and Payments, the Statements of Expenditure by Category and Financier, the Statement of Disbursement and related notes and appendices to the financial statements

3.2 Basis of measurement

Financial statements have been prepared under the historical cost convention and on *[cash/ accrual]* basis of accounting

3.3 Changes in Accounting policies

*Describe changes in accounting policies, if any*

3.4 Fund Flow mechanism

*Describe the fund flow mechanism, in particular, whether the IA/EA control funds or whether all payments are centralized*

3.5 Advances and other receivables

*Describe treatment of advances against expenditures*

3.6 Cash and cash equivalents

*Cash equivalents comprise [define components of cash]. Explain if the entity controls unspent advances, only petty cash, or has a nil balance, as applicable*

3.7 Accrued and other liabilities

*Disclose any major liabilities which have not been accrued under the cash basis policy*

3.8 Income

- i) *Describe nature of different types of income and how they are recognised. For example grants, sale of proceeds of fixed assets, interest income on bank accounts etc.*
- ii) *[Include if applicable] Free of cost office space, electricity and certain other services provided by {insert name} are not valued and accordingly, are not recognized in these financial statements as income of the Project.*

3.9 Foreign currency transactions and translation

(a) Functional and presentation currency

Items included in the financial statements of the Project are measured using the currency of the primary economic environment in which the entity operates (the functional currency), which is the Indian Rupee (INR).

(b) Transactions and balances

Transactions in foreign currency are converted at the exchange rate prevailing at the date of transaction. Foreign currency bank balances are re-stated at the year end rate, and the resulting gains/losses are recognized in the statement of receipts and payments account. Conversion Rate: USD \$ 1 = INR \_\_\_\_ as of 31 March \_\_\_\_

3.10 Allocation of Common Costs

*Describe how common costs are allocated to different output/activities*

3.11 Interest Expenses and Financial Charges

*Describe how financial charges are treated and recorded. For example if these are not allocated to the Project by the CAA.*

4. Funds Received from the Government

*Give details of the government budgeting and funding mechanism*

	in (INR) '000		
	Current Year	Prior Year	Cumulative Year to date
Government Counterpart funding			
Amount Reimbursable to Government			
Total	=====		

#### 5. DATE OF AUTHORIZATION

These financial statements have been authorized for issue by the \_\_\_\_\_ of  
\_\_\_\_\_ on .....

**Name of the Executing Agency**  
**Name of the Implementing Agency**

**[NAME OF THE ENTITY/PROJECT]**

**Loan/Grant No.**

**NOTES TO THE FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED [YEAR END DATE]**

**6. Funds Received from ADB**

*Give key terms and conditions of the loan, including date of loan agreement, loan effectiveness date, key terms and conditions, disbursement schedule, commitment fee and interest rates etc.*

in (INR) '000

<b>ADB Source of Funds – Method of Withdrawal</b>	<b>Note Reference</b>	<b>During the Current Year</b>	<b>During the Previous Year</b>	<b>Cumulative Project to Date</b>
ADB Loan				
- By Reimbursement Method	6.1			
- By Imprest Account <sup>1</sup>	6.2			
- By Direct Payment	6.3			
- By Commitment Procedure	6.4			
ADB Loan Total				
ADB Grant				
ADB Loan and Grant Total				

<sup>1</sup> This should agree with the advances/replenishments net of refunds in Statement 6.2.

**6.1 Funds Received from ADB through Reimbursement Method**

*Give details, if necessary*

**Name of the Executing Agency**  
**Name of the Implementing Agency**

[NAME OF THE ENTITY/PROJECT]  
 Loan/Grant No.  
**NOTES TO THE FINANCIAL STATEMENTS**  
**FOR THE YEAR ENDED [YEAR END DATE]**

6.2 Reconciliation of the Imprest Account and the Bank Statement is given below

**STATEMENT OF IMPREST ACCOUNT**  
**FOR THE YEAR/PERIOD ENDED XX, XXXX.**

in (INR) '000

		Prior Year	Current Year
<b>Balance brought forward from previous period</b>		<b>100</b>	<b>140</b>
Add:			
Advance <sup>1</sup>		200	200
Replenishment received during the year/period <sup>1</sup>			
Interest Earned		10	10
<b>Subtotal (A)</b>		<b>310</b>	<b>350</b>
Deduct:			
Payments made during the year/period		150	150
Replenishment /Liquidation <sup>1</sup>	50		
Expenditure yet to be claimed	100		
Amount refunded during the year/period		20	20
<b>Closing Balance (B)</b>		<b>140</b>	<b>180</b>
As per bank statement (copy attached)		140	180

1 Withdrawal application-wise references required

6.2.1 The US \$ equivalent notational amount held at the RBI in respect of the above Imprest Account balance is \_\_\_\_\_ US \$ (bank statement attached)

6.3 Details of Payments made directly by ADB are given below

*(Add relevant details here)*

6.4 Details of payments made through commitment procedure

*(Add relevant details here)*

6.5 Details of Grants

*(Give relevant details for grants)*

Name of the Executing Agency  
Name of the Implementing Agency

[NAME OF THE ENTITY/PROJECT]

Loan/Grant No.

NOTES TO THE FINANCIAL STATEMENTS  
 FOR THE YEAR ENDED [YEAR TO DATE]

6.6 Details of disbursement claimed under the Statement of Expenditure (SOE) Procedure are given below

**DISBURSEMENT CLAIMED UNDER STATEMENT OF EXPENDITURE (SOE) PROCEDURE  
 FOR THE YEAR/PERIOD ENDED XX, XXXX**

in (INR) '000

W/A No.	SOE Sheet No.	Category	Total Amount Paid	ADB Financing % <sup>1</sup>	Net Eligible Expense	Amount Reimbursed	Imprest Fund Replenished/ Liquidated	Total Disbursement Using SOE Procedure
	2	3	4	5	6 (4x5)	7	8	7 + 8 = 9
00001	1	Civil Works	100	80%	80	60	20	80
	2	Mechanical and Equipment						
00002	1	Consultants						
	2	Salaries						
	3	Accommodation						
00005	1	Environment and Social Mitigation						
	2	Equipment Operation and Maintenance						
		<b>Total</b>						
		<b>Total for [prior year]</b>						

<sup>1</sup> The financing percentages within the table for ADB funds are as per loan agreement Schedule 3.

**Name of the Executing Agency**  
**Name of the Implementing Agency**

**[NAME OF THE ENTITY/PROJECT]**  
**Loan/Grant No.**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**FOR THE YEAR ENDED [YEAR END DATE]**

in (INR) '000

		Cumulative
Current	Prior	Project to
Year	Year	Date

7 – 13

*If any of the amounts given on the Statements of Receipts and Payments require further detail or Break-down, provide this here against relevant Note*





**Name of the Executing Agency**  
**Name of the Implementing Agency**  
**Name of the Project**  
**Loan/Grant No.**

**EXPENDITURE BY OUTPUT COMPONENTS**

	Unallocable common costs			Output 1 <sup>1</sup>			Output 2			Output 3			Total Expenditure		
	Prior Year	Current Year	Cum to Date	Prior Year	Current Year	Cum to Date	Prior Year	Current Year	Cum to Date	Prior Year	Current Year	Cum to Date	Prior Year	Current Year	Cum to Date
Investment Costs															
Civil Works															
Mechanical Equipment															
Environment and Social Mitigation															
Consultants															
a. Project Management															
b. Capacity Development															
Others															
Subtotal (A)															
Recurrent Costs															
Salaries															
Accommodation															
Equipment Operation and Maintenance															
Others															
Subtotal (B)															
Total Cost (C=A+B)															
% Total Project Cost															

<sup>1</sup> Allocate the expenditure to the different Project Output Components as per the Loan Agreement. Add as many columns as required. For common costs allocated, specify the sharing ratios in the note 3.10

**Example of a Management Assertion Letter**

(Project Letterhead)

(To Author)

(Date)

This assertion letter is provided in connection with your audit of the financial statement of the \_\_\_\_\_ Project for the year ended \_\_\_\_\_. We acknowledge our responsibility for the fair presentation of the financial statements in accordance with the cash basis of accounting followed by the Government of India, and we confirm, to the best of our knowledge and belief, the following representations made to you during your audit:

- The project financial statements are free of material misstatements, including omissions.
- Project funds have been used for the purposes for which they were provided.
- Project expenditures are eligible for financing under the Loan/Credit agreement.
- There have been no irregularities involving management or employees who have a significant role in internal control or that could have a material effect on the project financial statements.
- We have made available to you all books of account and supporting documentation relation to the project.
- The project has complied with the conditions of all relevant legal agreements, including the Financing Agreement, the Project Agreement, the Project Appraisal Document, the Minutes of Negotiations, and the Borrower's Project Implementation Plan.

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 (Project Director / Chief Executive Officer)

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 (Chief Finance Officer / Senior Finance Officer)

**Excerpt from CAG Auditing Standards (2<sup>nd</sup> Edition, 2002) Chapter IV, Reporting Standards**

**12. The form and content of audit opinion and report.**

**12.1 The form and content of all audit opinions and reports are founded on the following general principles:**

- (a) **Title.** The opinion or report should be preceded by a suitable title or heading, helping the reader to distinguish it from statements and information issued by others.
- (b) **Signature and date.** The opinion or report should be properly signed. The inclusion of a date informs the reader that consideration has been given to the effect of events or transactions about which the auditor became aware up to that date (which, in the case of regularity (financial) audits, may be beyond the period of the financial statement).
- (c) **Objectives and scope.** The opinion or report should include reference to the objectives and scope of the audit. This information establishes the purpose and boundaries of the audit.
- (d) **Completeness.** Opinions should be appended to and published with the financial statements to which they relate, but performance reports may be free standing. The auditor's opinions and reports should be presented as prepared by the auditor. In exercising its independence CAG may acquire information from time to time, which in the national interest cannot be freely disclosed. This can affect the completeness of the audit report. In this situation the auditor should consider the need to make a report, possibly including confidential or sensitive material in a separate, unpublished report.
- (e) **Addressee.** The opinion or report should identify those to whom it is addressed, as required by the circumstances of the audit engagement and local regulations or practice. This is unnecessary where formal procedures exist for its delivery.
- (f) **Identification of subject matter.** The opinion or report should identify the financial statements (in the case of regularity (financial) audits) or area (in the case of performance audits) to which it relates. This includes information such as the name of the audited entity, the date and period covered by the financial statements and the subject matter that has been audited.
- (g) **Legal basis.** Audit opinions and reports should identify the legislation or other authority providing for the audit.
- (h) **Compliance with standards.** Audit opinions and reports should indicate the auditing standards or practices followed in conducting the audit, thus providing the reader with an assurance that the audit has been carried out in accordance with generally accepted procedures.
- (i) **Timeliness.** The audit opinion or report should be available promptly to be of greatest use to readers and users, particularly those who have to take necessary action.

## Report of the Comptroller and Auditor General of India

To

(Project Implementing Authority)

### Report on the Project Financial Statements

We have audited the accompanying financial statements of the \_\_\_\_\_ Project financed under Asian Development Bank Loan No. \_\_\_\_\_, which comprise the Statement of Receipts and Payments, the Statement of Expenditure by Category and Financier, the Statement of Disbursement<sup>1</sup> and related notes for the year ended \_\_\_\_\_.

#### OR

In case of PIA maintaining Balance Sheet balance sheet and statement of income and expenditure following part may be substituted:

We have audited the accompanying financial statements along with Balance Sheet balance sheet, income and expenditure statement and Cash Flow Statement and related statements of the \_\_\_\_\_ Project financed under Asian Development Bank Loan No. \_\_\_\_\_, for the year ended \_\_\_\_\_,

These statements are the responsibility of the Project's management. Our responsibility is to express an opinion on the accompanying financial statements based on our audit.

We conducted our audit in accordance with the Auditing Standards promulgated by the Comptroller and Auditor General of India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. Our audit examines, on a test basis, evidence supporting the amounts and disclosures in the financial statements. It also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements present fairly, in all material respects, the sources and applications of funds of Project for the year ended [insert date] in accordance with Government of India accounting standards.<sup>2</sup>

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<sup>1</sup> Insert titles of other required statements and schedules included in or annexed to the project financial statements, if any.

<sup>2</sup> Until the Ministry of Finance prescribes adoption of the accounting standards pronounced by GASAB or other body such as IPSAS, the accounting standards followed by the Government of India shall be the cash basis of accounting applied with due regard to the General Financial Rules, PWD codes, Treasury codes and similar

In addition, in our opinion;

- (a) Proceeds of the loan from ADB have been utilized for the purposes as per ADB Loan / Project Agreement
  - (b) Financial covenants in the loan agreement [name and number of loan] dated [date of loan] have been complied with
  - (c) (i)(a) With respect to SOEs, adequate supporting documentation has been maintained to support claims to the Asian Development Bank for reimbursements of expenditures incurred; and (b) except for ineligible expenditures as detailed in the audit observations, if any, appended to this audit report, expenditures are eligible for financing under the Loan Agreement.
- (ii)(a) The Imprest Accounts give a true and fair view of the receipts collected and payments made during the year ended---; and (b) these receipts and payments support Imprest Account liquidations/replenishments during the year.

This report is issued without prejudice to CAG's right to incorporate the audit observations in the Report of CAG of India for being laid before Parliament/State or UT Legislature.

[Auditor's Signature]

[Auditor's Address]

[Date<sup>3</sup>]

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financial rules and codes as are in effect and applicable to the operations of the project.

<sup>3</sup> The report should be dated as of the date to which the auditor has become aware of and considered the effects of events and transactions. This is generally the final date of fieldwork, as opposed to the date of signing the audit report.

## Grievance Redress Mechanism

1. By loan effectiveness, DOH-PMU will ensure that a grievance redress mechanism (GRM) to support the social and environmental safeguards of the project is established. The GRM will receive, evaluate and facilitate the resolution of impacted people's feedback, including concerns, complaints and grievances about the social and environmental performance at the level of the Project. The GRM will aim to provide a time-bound and transparent mechanism to voice suggestions and appreciations and to resolve social and environmental concerns linked to the project. The project-specific GRM is not intended to bypass the government's own redress process, rather it is intended to address stakeholders's concerns and complaints promptly, making it readily accessible to all segments of the community, and is scaled to the risks and impacts of the project. Complainant may access the formal legal system at any time.

2. During project preparation, information regarding the GRM will be disclosed as part of the public consultation process. Feedbacks related to the implementation of the project will be acknowledged, evaluated, and responded to the complainant with corrective action proposed. The outcome shall also form part of the semi-annual monitoring report that will be submitted to ADB.

### Principles

3. **Based on Stakeholder Rights.** Project stakeholders are those likely to be directly or indirectly affected, positively or negatively, by project activities. Stakeholders have the following rights under the project:

- (i) Right to information;
- (ii) Right against inappropriate intervention by an outside party;
- (iii) Right to a project free of fraud and corruption.

4. **Open and Inclusive.** Any stakeholders (including villagers, contractors, project staff, authorities, and other involved parties) may file a feedback and/or a grievance if s/he believes his/her rights, or if any of the project's principles and procedures, has been violated. Anyone may give comments or suggestions about any aspect of the project. Comments, suggestions, appreciation, or questions should be recorded and submitted to the feedback handling focal points at community, district, and state level.

5. **Transparency.** Information about the GRM, including contact details, will be distributed to all participating communities, at public meetings, through brochures/pamphlets in local languages, posted at WUA and CHPMA boards and, to the extent possible, advertised on local radio and TV.

6. **Accessibility.** Different channels can be used for filing feedback, including by letter (using locked mailboxes and pre-addressed envelopes available at WUA and CHPMA signboards in each project community), by phone, email, social media, and in person. Community members and stakeholders themselves decide on the best ways to file complaints.

7. **Free.** There is no charge for filing an inquiry and/or a feedback.

8. **Anonymity, Confidentiality, and Security.** All feedback, and especially grievances, are treated confidentially. Feedback is disclosed publicly, but the identity of the feedback giver is treated as confidential and is withheld unless they self-identify. Feedback focal points, and members of FHCs violating this confidentiality are subject to sanctions.

9. **Quick Action.** A grievance is answered within 15 days from the time the feedback is received. Grievances should be resolved within 60 days of receipt.

10. **Subsidiarity.** Any feedbacks and grievances are addressed and resolved locally, and at the lowest level, if possible. If a grievance cannot be resolved locally, it is sent to a higher level, within 15 days of receipt.

11. **Objective and Independent.** The grievance focal point assigned to handle feedback or resolve a grievance interviews the person who filed the feedback or grievance, documents the actions taken at the location where the complaint originated, and discloses the response or the resolution taken for the case. Serious feedback and grievances, including any allegations related to the misuse of funds, must be reported to the State-level FHC immediately. Designated PMU staff enter agreed feedback action in the project management information system (MIS), and when and by whom action to resolve any grievance was taken. The State-level feedback committee reviews the feedback MIS data monthly.

## **Process**

12. A FHM will be established with the formation of Grievance Redress Committees (GRC) at three levels: i.e. WUA/CHPMA level, District level and PMU level.

13. The WUA/ (community) level GRC will comprise of the:

- (iv) Presidents of the WUA and CHPMA;<sup>1</sup> (Joint chairpersons)
- (v) CHPMAWUA and CHPMA feedback handling officers (elected by respective groups)
- (vi) A Panchayat representative;
- (vii) A representative from Affected Person;
- (viii) Horticulture Extension Officer, Block Level;
- (ix) DIPH irrigation officer, Block Level.

14. The District level GRC will comprise of the:

- (i) Designated representative of District Collector (Chairperson)
- (ii) Deputy Director of Horticulture (feedback handling focal point);
- (iii) Deputy Director of Irrigation and Public Health (feedback handling focal point);
- (iv) A representative from local NGOs or a local person of repute and standing in the society or an elected representative.
- (v) A representative from the Affected Person

15. The PMU level GRC will comprise of the:

- (i) Project Director, Department of Horticulture (Chairperson)
- (ii) Project Deputy Director, Department of Irrigation and Public Health
- (iii) Project Deputy Director, Department of Horticulture
- (iv) PMU Level Environmental Officer
- (v) PMU Social Safeguards Officer (PMU Feedback handling focal point)

16. All persons involved in project implementation will be trained on how to receive and handle feedback, and how to keep it confidential

17. The grievance handling process will involve five steps: (1) intake; (2) sorting; (3) verification; (4) action; and (5) follow-up and monitoring.

18. **Step 1: Intake.** A grievance can be filed by anyone, and through different means:

- (i) Verbal communication to a WUA or CHPMA feedback focal point, and/or designated and trained block or district DOH and DIPH feedback handling officers;

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<sup>1</sup> One FHC representatives of both the WUA and CHPMA will be a woman.



- (ii) Using a feedback envelope and the suggestion box placed at each WUA and CHPMA meeting place/office. The elected WUA and CHPMA feedback handling officers open the feedback box at least every week. Each box is equipped with two locks, with one key each held by the WUA and CHPMA Chairpersons and the feedback handling officers respectively. Feedback/grievance envelopes from the box must be opened in front of at least two people – e.g. CHPMA or WUA grievance redress officers and Secretaries;
- (iii) Letters to the DOH and DIPH state, district and block offices, and the PMU at state level;
- (iv) At meetings and monitoring visits;
- (v) E-mails to dedicated e-mail addresses of the DOH and DIPH state offices and the PMU;
- (vi) A dedicated phone line for the DOH and DIPH state offices and the PMU; or
- (vii) On the Government Portal titled "E-Samadhan" that enables a citizen to lodge a complaint and keep its track online through the website <http://admis.hp.nic.in/esamadhan>.

19. Feedback or complaints can be sent at any time to any level (e.g. a grievance can be directed to the community, block, district or state level). If a grievance is related to a community, the complainant is encouraged to report to the district level. If a grievance is related to a block or district, or the state, it is suggested to report to the PMU level.

20. At the community level, the elected WUA or CHPMA feedback handling officers<sup>2</sup> are the regular primary contact for anyone who wishes to file a feedback/grievance. If an individual prefers, feedback or grievances can be sent to others involved in the project implementation, such as DOH or DIPH block, district or State staff or PMU officers.

21. Block and district level DOH or DIPH staff receiving grievances must complete the project grievance form, and submit it without delay to the assigned district DOH or DIPH feedback handling focal point.

22. State level DOH, DIPH or PMU staff receiving grievances must complete the project grievance form and submit it without delay to the grievance-handling officer of the PMU.

23. **Step 2: Sorting.** The PMU Monitoring and Evaluation (M&E) officer will maintain a feedback recording system in the project Management Information System (MIS). Feedback will be divided into eight categories: :

- Category 1: General inquiries
- Category 2: Feedback regarding violations of policies, guidelines and procedures
- Category 3: Feedback regarding contract violations/breach of contract
- Category 4: Feedback regarding the misuse of project funds
- Category 5: Feedback regarding abuse of power/intervention
- Category 6: Reports of force majeure
- Category 7: Suggestion
- Category 8: Appreciation

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<sup>2</sup> Elected annually by the members of the respective associations

24. The PMU Social Safeguards officer will be responsible for categorizing feedback received at the State level and entering it into the project MIS, The District level DOH and DIPH feedback focal points will categorize feedback received at the District and Block level, and any feedback referred upwards by WUA or CHPMA chairpersons, and enter it into the project MIS. Feedback received at WUA or CHPMA level that can be managed locally will be maintained in association records and periodically entered into the MIS by the PMU M&E team.

25. Once a grievance has been received, the relevant feedback handling focal points decide how to handle it, including the timeframe within which the case should be resolved, with a timeframe not exceeding 60 days. Feedback relating to:

- (i) a community issue will be handled by the WUA and CHPMA chairpersons. To the extent possible, community feedback/complaints should be addressed at the community GRC level, however, the community FHC chairpersons can refer grievances upward to the district GRC;
- (ii) a block issue will be handled by the district feedback focal points;
- (iii) a district issue will be handled by PMU feedback focal point; and
- (iv) grievances that are of a serious nature (e.g. all allegations of fraud or corruption, and potentially any grievance in categories 2 through 5), the district feedback focal point officers consult with the PMU feedback focal point for advice on the appropriate action.

26. If the person filing the grievance is known, the relevant feedback focal point communicates the timeframe and course of action to the complainant within one week of receipt of the grievance.

27. **Step 3: Verification.** The responsible feedback focal point(s) handling the grievance gather facts and clarify information to generate a clear picture of the circumstances surrounding the grievance. At community level, WUA and CHPMA chairpersons, deputy chairpersons or secretaries will assist their respective focal points to verify grievances. Verification normally includes site visits, a review of documents, a meeting with the complainant (if known and willing to engage), WUA and CHPMA Committee members, and meetings with those who could resolve the issue (including formal and informal community leaders). Feedback related to the misuse of funds may also require meetings with suppliers and contractors.

28. For serious grievances received at the state level by phone or letter, the PMU GRC decides whether (i) to launch its own investigation; or (ii) instruct the district DOH or DIPH feedback focal points to conduct an initial investigation at the location where the grievance/problem occurred. If the district-level feedback focal points cannot resolve the grievance, it will, within 15 days, be reported back to the PMU GRC for further action.

29. Within the allotted period, the results of the verification are presented by the respective feedback focal points to the respective GRCs (dependent on the nature of the complaint) for action.

30. At State and district levels, the respective grievance handler fills in the grievance form and submits it to the PMU M&E officer who enters it into the project MIS.

31. **Step 4: Action.** Feedback from the community level should be handled and recorded in the village, if possible. For issues that cannot be resolved within 21 days at the community level, the district GRC's review these grievances and the results of the verification and determine the action to be taken. If referred to district level, once the needed action(s) are carried out, the district grievance handler fills in a grievance report and enters it into the MIS.

32. If the actions cannot be carried out, or the grievance cannot be satisfactorily resolved in a reasonable period of time (less than 30 days), the district GRC refers the matter back to the PMU feedback focal point (Social Safeguards specialist) to review the case and determine the action to be taken.

33. If the complainant is known, the feedback focal point with whom the grievance was filed communicates the action to the complainant. The feedback focal point must seek feedback from the complainant as to whether the action(s) are deemed to be satisfactory. If the action is considered unsatisfactory, the complainant may file a new grievance. A new grievance on an existing case is handled at the next higher level from the initial case.

34. The Community GRC communicates the action taken as a result of a grievance, to villagers at the next WUA/CHPMA meeting.

35. **Step 5: Follow-up and Monitoring.** In its regular supervision visits, the PMU assess the functioning of the district and community GRMs and undertakes spot checks.

36. The PMU uses the MIS to provide a monthly snapshot of the GRM (number and category of comments received, and grievances/suggestions resolved), including any suggestions received and acted on.

37. The PMU uses the MIS to report on grievances and FHM feedback in its quarterly implementation progress reports, safeguard monitoring reports, and its annual reports. Reports include information on grievance resolution and trends (number of grievances received, cause of grievance, number resolved, average time taken to resolve a grievance, percentage of individuals having filed a grievance who are satisfied with the action taken, number of grievances resolved at the lowest applicable level, etc.).

38. The PMU and the ADB review grievance monitoring data as part of regular implementation support missions.

39. A review of the grievance handling system (including the grievance of those who have used it) is undertaken during every second year to assess the efficacy of the mechanism and introduce improvements.

40. The decision of the GRCs is binding, unless vacated by the court of law. The affected person, however, is free to access the country's legal system at any time and stage although the project GRM is the preferred route. The GRC will continue to function, for the benefit of the stakeholders, during the entire life of the project.

41. The affected people can also register their grievances on the Government Portal titled "E-Samadhan" that enables a citizen to lodge a complaint and keep its track online through the website <http://admis.hp.nic.in/esamadhan>. The departmental interface allows officers to mark, reply, seek additional information and take other necessary action in workflow manner by escalating the same. The Chief Minister, Chief Secretary, Ministers and Secretaries can monitor the overall status of functioning of the system. The project GRM would be supported through this portal.

42. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working

with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism <sup>3</sup>.

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<sup>3</sup> For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

**Attachment F**

**Environment Protection Guidelines for Project Readiness Financing**

<b>I. INTRODUCTION .....</b>	<b>1</b>
<b>Project Description .....</b>	<b>2</b>
<b>PRF Outputs and Activities .....</b>	<b>2</b>
<b>Pilot Project Areas .....</b>	<b>3</b>
<b>Objective of the Guideline .....</b>	<b>4</b>
<b>II. KEY LESSONS LEARNED FROM PREVIOUS PROJECTS IN INDIA .....</b>	<b>4</b>
<b>III. RELEVANT LAWS, REGULATIONS AND POLICIES .....</b>	<b>5</b>
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<b>V. SITE SELECTION FOR IRRIGATION DEVELOPMENT .....</b>	<b>7</b>
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## I. INTRODUCTION

1. Himachal Pradesh is one of the smaller states in India and identified as high-hills areas and less than 10% of the total area is under cultivation.<sup>1</sup> Majority of the state's population live in rural areas and nearly 62% of the state population relies on the agriculture and its allied sector for a significant part of their income. Since agriculture remains an important employer affecting a large number of state population in rural areas, there is a sizable role of agriculture in development. The state government of Himachal Pradesh aims to double farmers' income for rural livelihood development and enhance the agriculture sector's contribution to GSDP.

2. The state government of Himachal Pradesh recognizes horticulture as an integral component to enhance farmers' income. The potential for the growth of horticulture is shown in various parameters. The consumption of selected fruits and vegetables has grown at a rate of 18-23% and 10-20% in rural areas of India between 1992-1994 and 2000-2001, still less than the recommended dietary requirements. In addition to the growth of domestic demands, horticultural sector accounts for about 54% of the total exports of agricultural commodities in India. Over the last decade this sector has recorded a rising trend at the average growth rate of 3-6%.

3. Himachal Pradesh features four agro-climatic zones (Figure 1) – sub-montane subtropical low hills zone, mid-hills sub humid zone, high-hills temperate wet zone, and a high-hills temperate dry zone.<sup>2</sup> There is a distinctive agricultural development gap among the agro-climatic zones. Temperate horticulture is dominated by apple production, which is the most important fruit crop for the state comprising 85% of the state's fruit production and contributing 4% to GSDP in 2012-13. While crop diversification is increasing in Himachal Pradesh, a significant increase in fruit and vegetable crop production is mostly concentrated in districts of the mid-hills sub-humid zone, leaving a substantial income gap between temperate and subtropical horticultural farmers. Farmers of temperate horticulture earn, on average, \$1,550 per month while horticulture farmers in the subtropical low hills zone and some mid-hills subhumid zones earn, on average only \$116 month or 7.4% of temperate horticultural farmers' income.

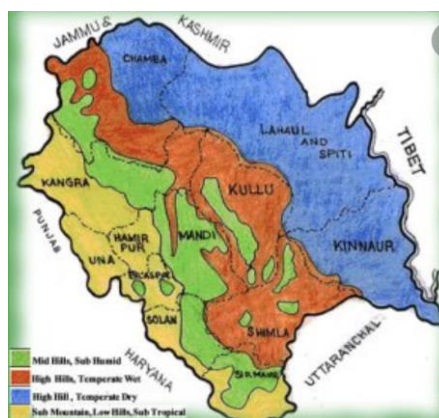


Figure 1. Map showing the climatic distribution over Himachal Pradesh<sup>3</sup>

4. Even when farmers producing subtropical fruits overcome these challenges, access to high value markets is limited and farming is unprofitable. According to the 2010-2011 agricultural consensus,

<sup>1</sup> According to the directorate of land record Himachal Pradesh 2009-2010, land use pattern of HP is: forest cover (19.87%), land not available for cultivation (20.33%), non-cultivated land (30.54% - waste (2.3%), permanent pasture (27%), fallow land (1.47%).

<sup>2</sup> Himachal Pradesh features four agro-climatic zones – sub-montane subtropical low hills zone (16.4% of state land; 38% of total cropping areas); mid-hills sub humid zone (21.3% of state land; 41% of total cropping areas); high-hills temperate wet zone (23% of state land; 18.4% of total cropping areas); and high-hills temperate dry zone (39% of state land; 2.6% cropping areas).

<sup>3</sup> <https://himachalpradesh.pscnotes.com/himachal-pradesh-geography/climate-himachal-pradesh/>

87.95% of the total landholdings are small (1-2 ha) and marginal (below 1 ha) making the state's average landholding size just 1.07 ha. Moreover, between 1990/91 and 2014/15, the percentage of marginal farmers with less than 1.0 ha of land has increased from 63.8% to 69.78%, while medium, large and extra-large sized landholdings have decreased<sup>4</sup>. Failing to meet marketable scale of production, Indian farmers receive 10-23% of the consumer price while farmers in developed countries receive about 65-80%.

## Project Description

5. The Himachal Pradesh Sub-tropical Horticulture, Irrigation, and Value Addition Readiness (HPSHIVA-R) project is proposed to (i) establish high level of project readiness of the ensuing loan; (ii) build capacities of the project executing and implementing agencies which have not previously implemented an ADB-financed project; and (iii) test and demonstrate new subtropical horticultural farming practices including water use management, and establish new production technologies and marketing systems.

6. The PRF's pilot activities will comprise new irrigation systems to service the new subtropical horticultural farming practices, and the establishment of new production technologies and marketing systems. The PRF will pilot subprojects in selected blocks from four of these districts (Bilaspur, Hamipur, Kangra and Mandi) where land for the pilot horticulture production plots is already identified and the participation of the farmers is agreed.

## PRF Outputs and Activities.

The PRF will have the following four outputs:

- (i) *Output 1: Irrigation infrastructure development and farmer management systems established.* This output will be managed by DIPH. Output 1 will (a) construct or rehabilitate 16 irrigation schemes introducing innovative technologies for water extraction, distribution and storage, and enhanced climate and disaster resilience (PRF pilot); and (b) establish and capacitate water user associations on the constructed irrigation schemes with women's participation and gender equitable leadership.
- (ii) *Output 2: Subtropical horticulture production technology and marketing systems demonstrated.* This output will be managed by DOH. Output 2 will: (a) develop 17 subtropical horticulture plots covering 168 hectares, engaging 480 male and female farmers for irrigated high- and ultra-high density production of citrus, guava, litchi and pomegranate; (b) fence all horticulture plots to protect from animal predation; (c) form community horticulture production and marketing associations (CHPMA) in the PRF areas and build their capacities for business/marketing; and (d) facilitate the development of CHPMA investment plans for subtropical horticulture value addition and market development.
- (iii) *Output 3: Enabling environment, tools and capacity for promoting irrigated subtropical horticulture provided.* This output focuses on developing capacity building tools and creating an enabling environment for the implementation of the ensuing project.
- (iv) *Output 4: Ensuing investment project and its implementation readiness prepared.* This output will support DOH and DIPH to prepare the feasibility studies, detailed engineering design and surveys, due diligence assessment, safeguards preparation work and bid documents for the ensuing loan, supported by PRF consultants.

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<sup>4</sup> 2014-2015 data – Economic Survey of Himachal Pradesh, Economics and Statistics Department (from WB HPHDP PD). 1990-1991 data – Annual Admin Report, Department of Agriculture, 2001-2002 (from doubling farmers income in HP)

### Pilot Project Areas

7. Out of the seven districts of Bilaspur, Hamipur, Kangra, Mandi, Solan, Sirmour and Una targeted under the ensuing loan project, the PRF prioritized four districts of Bilaspur, Hamipur, Kangra and Mandi (Figure 2) where land for horticulture production plots was already identified and agreed by farmers. The PRF will finance: (i) the construction of 16 irrigation systems in 4 districts of Himachal Pradesh (HP); (ii) the pilot development of drip irrigated high and ultra-high density subtropical horticulture crops on 168 ha of irrigated land involving 408 male and female farmers, including 20% poor households; (iii) the development of an HP horticulture sector development strategy; and (iv) the preparation of the full HP-SHIVA loan project.

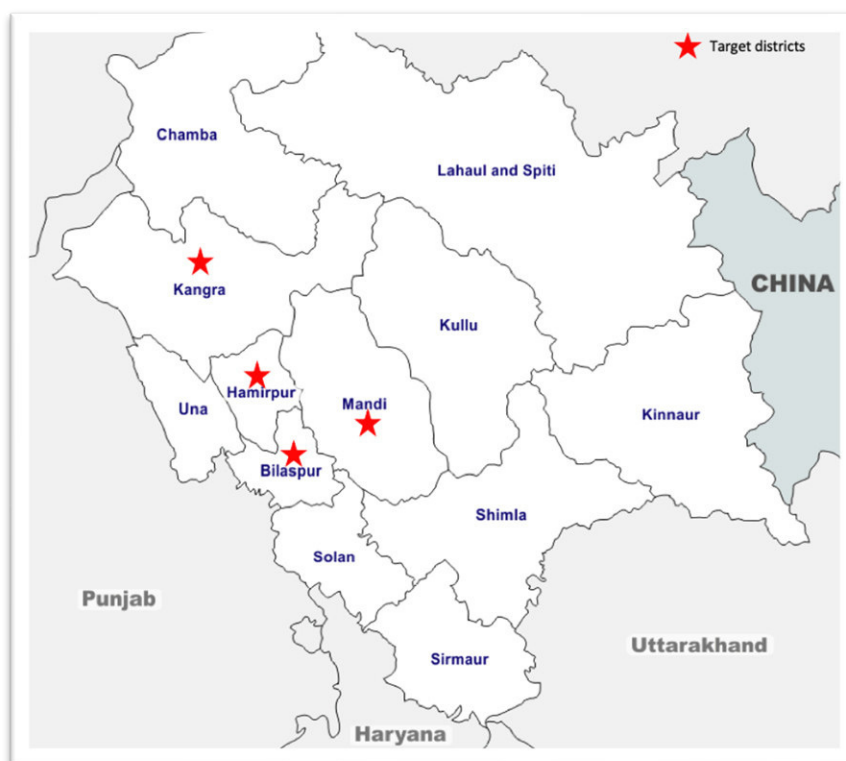


Figure 2. Map<sup>5</sup> of the priority districts for the PRF's pilot areas

8. The pilot test areas (See Figure 3) will have simple construction activities. Generally, the implementation will be done manually such as trenching for laying pipes and distribution system, transportation of material from main road to project areas and manual perpetration and application of concrete. There is no need for blasting and road construction. The construction materials will be brought from local market and transported through existing roads and followed by manual shifting to sites. No material will be sourced directly from mines or quarries. Also, water requirement for construction is limited and sourced from local perennial water sources with due permission from concerned authorities, as applicable.

<sup>5</sup> Source: [https://d-maps.com/carte.php?num\\_car=8674&lang=en](https://d-maps.com/carte.php?num_car=8674&lang=en)





*Figure. 3 Locations of the proposed pilot projects.*

9. The dug soil during pipe laying process will be spread in the field under cluster area and used for small construction work involved. Some construction debris may generate during construction of small weir across Khud or water channels and will be used for other construction activities. In the Dulet scheme, no construction debris because only distribution work is proposed in the cluster area, but some debris may generate during the placement of storage tanks. In Bilaspur District, small quantity of about 50 m<sup>3</sup> excavated material is expected and disposed at a site located at pump house at Khasra No. 863/460.

### **Objective of the Guideline**

10. The purpose of the Environment Protection Guidelines (EPGs) is to further improve the ecological outcomes and to reduce further and/or eliminate the potential environmental impacts on environment due to the pilot-test activities of HPSHIVA: PRF. These guidelines are used for PRF's selection of pilot-test sites, designing appropriate schemes, and providing safeguard mitigation measures for the irrigated high-density subtropical horticulture production, so as to attain the expected environmental targets of the project.

## **II. KEY LESSONS LEARNED FROM PREVIOUS PROJECTS IN INDIA**

11. Agriculture, horticulture and forestry development projects in India have paid high attention to environmental management through the identification and implementation of mitigation measure to avoid or minimize potential negative impacts from project activities on natural resources and ecosystems in the project areas. Measures have also been taken to conserve soil and water, reduce soil fertility decline, control pest and disease and promote sustainable development. Major environmental measures adopted in related development projects include:

- (i) development and execution of "Environmental Protection Guidelines" which included explicit environmental protection measures regarding sites selection and layout, selection of planting species (varieties) and their distribution;
- (ii) Development and execution of "Pest and Disease Management Plans", which include specific stipulations for pest/disease prevention and control, monitoring as well as the chemical pesticide safety during project implementation. These management plans advocate physical and biological prevention and control methods, and the use of high-efficiency and low-toxicity for chemical pesticide for pest management;

- (iii) Integration of the aforementioned plans into Packages of Practice (PoPs) for specific crops.
- (iv) Baseline evaluation and close monitoring of soil and water conservation, soil fertility, and pests and disease;
- (v) Training of project management and technical staff at all levels as well as project entities and households to promote their environmental protection awareness and to understand and learn the proposed technologies and measures stipulated in Environmental Protection Guidelines and Pest and Disease Management Plan.

### III. RELEVANT LAWS, REGULATIONS AND POLICIES

12. The PRF would be implemented in line with following key applicable acts, notifications, and policies:

**(National:** (i) Environment (Protection) Act and amendments (1986); (ii) Notification on Environment Impact Assessment of Development projects (and amendments) (referred to as the Notification on Environmental Clearance) (2006); (iii) Forest Conservation Act (1980); (iv) Water (Prevention and Control of Pollution) Act (and subsequent amendments) (1970); (v) Air (Prevention and Control of Pollution) Act (and subsequent amendments) (1981); (vi) Plant Quarantine (Regulation of Import into India) Order (2003); (vii) Post-entry Quarantine (2003); (viii) Quarantine Treatments and Application Procedures (2005); (ix) Protection of Plant Varieties and Farmers' Rights Act (2001); (x) National Forest Policy (1988); (xi) National Agriculture Policy (2000); (xii) National Water Policy (2002); (xiii) National Horticulture Mission (2005); (xiv) Building and Other Construction Workers (Regulation of Employment and conditions of Service) Act (1996); (xv) National Policy for farmers (2007), (xvi) Hazardous Waste (Management, Handling, Trans-boundary Movement) Rules, 2008, (xvii) Construction and Demolition Waste Management Rules 2016; (xviii) Noise Pollution (Regulation and Control) Rules, 2000 and Amendment 2002 and 2006.

**State:** (i) Himachal Pradesh Fruit Plant Nurseries Regulation and Amendment Act (2015); (ii) Environment Master Plan, Himachal Pradesh (2013); (iii) Himachal Pradesh Non-Biodegradable Garbage (Control) Act (1995); (iv) The Himachal Pradesh Transfer of Land (Regulation) Act (1968); and (v) The Himachal Pradesh Agricultural & Horticultural Produce Marketing (Development & Regulation) Act, 2005.

**ADB:** Safeguard Policy Statement of 2009.

### IV. PRF INTERVENTIONS AND PRACTICES

13. PRF interventions may be categorized, in general, as having a “low” level impact on the environment. The classification of activities in Table 1 below is largely subjective and may be overruled by new site-specific issues or information and detailed project activities not captured in this guideline. The PRF is not expected to engage in significant post-harvest pack houses, market yards or agro-processing infrastructure or associated waste disposal, which would have moderate or major environmental impacts requiring sub project specific standalone environment assessments and Environment Management Plans (EMP). PRF marketing infrastructure is expected to be limited to small CHPMA-managed sorting/grading/packing buildings at panchayat/block level.

14. With regard to impacts of the PRF activities that are not expected to cause any significant impact in such cases, best practice measures (Table 1) during the pilot-test designing are recommended where appropriate to improve the environmental and social performance of the project.

**Table 1: Practices to improve environment safeguards of the PRF**

<b>PRF interventions</b>	<b>Practices</b>
<ul style="list-style-type: none"> <li>16 irrigation systems including water storage</li> </ul>	<ul style="list-style-type: none"> <li>Conduct detailed hydrological and ecological assessments of proposed water capture/extraction and associated irrigation schemes;</li> <li>Conduct due diligence analysis of each irrigation scheme covering design, construction specification, downstream water availability impacts and climate and disaster risk assessments;</li> <li>Preparation of catchment management plans where required;</li> <li>Prepare contractors' requirement that will reflect environment safeguard measures</li> <li>Independent monitoring of irrigation scheme construction in relation to environment safeguard measures;</li> <li>Fair and transparent approach in the siting of community scale irrigation infrastructure, distributed across a large area and based on existing crop land holdings of each beneficiary farm household;</li> <li>Legislatively based user organization management of irrigation systems including fees for maintenance.</li> </ul>
<ul style="list-style-type: none"> <li>Post-entry quarantine (PEQ) and nurseries</li> </ul>	<ul style="list-style-type: none"> <li>Strict application of national and State quarantine, post-quarantine and varietal rights legislation;</li> <li>Train horticulture officers in the legislation and its application;</li> <li>Firm DOH regulation nurseries.</li> </ul>
<ul style="list-style-type: none"> <li>Pesticides and Fertilizers- application, use and storage (follow IPM)</li> </ul>	<ul style="list-style-type: none"> <li>Develop PoPs for the relevant crops, which will include integrated pest management practices (IPM);</li> <li>Provide experiential training for horticulture officers and farmers in their application;</li> <li>Circulate list of banned pesticides and insecticides and provide relevant guidelines and training in storing, handling, applying and disposing of fertilizers and pesticides. Prohibit purchase/use of WHO Class 1 &amp; 2 pesticides (<a href="https://www.who.int/ipcs/publications/pesticides_hazard/en/">https://www.who.int/ipcs/publications/pesticides_hazard/en/</a>);</li> <li>Provide, as required, available bio-control agents.</li> </ul>
<ul style="list-style-type: none"> <li>Unsustainable farming of irrigated land</li> </ul>	<ul style="list-style-type: none"> <li>PoPs will define sustainable environmental soil and water conservation, soil health management and agriculture and horticulture measures to be applied.</li> </ul>
<ul style="list-style-type: none"> <li>Pest and Disease Surveillance</li> </ul>	<ul style="list-style-type: none"> <li>Conduct bench-mark survey and prepare checklist of pests/pathogens;</li> <li>Training of DOH staff (project and line department) in IPM;</li> <li>Awareness camps for farmers as part of the IPM process.</li> </ul>
<ul style="list-style-type: none"> <li>Management of Pollinators</li> </ul>	<ul style="list-style-type: none"> <li>Build capacity for sustainably managing pollinators;</li> <li>Giving consideration to the season long resources needed by pollinators, both before and after crop flowering;</li> <li>Ensuring connectivity of natural habitats in farming areas, so that pollinators can more easily disperse and make needed shifts in response to changing climates.</li> </ul>

PRF interventions	Practices
<ul style="list-style-type: none"> <li>• Management of wild and stray animal menace</li> </ul>	<ul style="list-style-type: none"> <li>• Work with Forests Department on humane wild animal control programs in project areas;</li> <li>• Closely monitor the animal control effectiveness of alternative electric fence designs.</li> </ul>
<ul style="list-style-type: none"> <li>• Interventions related to climate change and disaster resilience</li> </ul>	<ul style="list-style-type: none"> <li>• Estimated Block climate change vulnerability index and District-level natural disaster vulnerability matrix to guide project climate change and disaster resilience action;</li> <li>• Dependent on location, stakeholder driven water catchment management schemes, including and natural disaster planning, prepared up to Block level;</li> <li>• Design standards for hydraulic structures, irrigation systems and water availability to integrate climate and disaster risk reduction strategies;</li> <li>• Energy and water efficient irrigation systems prioritized;</li> <li>• Agricultural production technology and management practices to incorporate climate resilient water, soil, fertility and pest and disease management systems (detailed in PoPs).</li> </ul>
<ul style="list-style-type: none"> <li>• CHDMA storage &amp; marketing of inputs and produce</li> </ul>	<ul style="list-style-type: none"> <li>• Any infrastructure subproject will require a Detailed Project Report (DPR) to identify and evaluate potential environmental impacts for the proposed activities, evaluate alternatives, and design mitigation measures;</li> <li>• Sites should be suitable for construction activity, with proper drainage and space for traffic movement;</li> <li>• Maximize natural light and ventilation systems to minimize needs for artificial light and air conditioning; use large windows for bright and well-ventilated rooms;</li> <li>• Include separate male and female sanitary toilets and basins for hand-washing;</li> <li>• Use of asbestos cement tiles as roofing prohibited;</li> <li>• Provision would be made for sustainable organic and inorganic waste management including the composting of bio-degradable waste.</li> <li>• Where required a separate EIA/EMP wherein the provisions for mitigation and compliance would be clearly detailed.</li> </ul>

## V. SITE SELECTION FOR IRRIGATION DEVELOPMENT

15. The following steps are the procedures for the selection of suitable irrigation areas of the PRF pilot-testing. The selected irrigation areas will have innovative technologies for water extraction, distribution and storage, and for enhanced climate and disaster resilience. If the answer to all of the step 3 questions is “YES”, then the subproject can be shortlisted. The long list of compliant schemes will be ranked based on a series of indicators to identify a priority shortlist of subprojects for detailed engineering design. Indicators for subproject ranking are detailed in Table 2.

16. Step 1: Present status of the proposed water storage sites:

- Are the proposed water storage area(s) free of cultural relics or other protected areas, and is the distance of any relics or resources from the water storage area(s) greater than the rules stipulated by the local authority
- Can the water offtake/storage site reliably meet the crop water demand of the target area including consideration of climate change induced water supply variability?

- c. Is the site free of risk of a natural disaster that could render the water storage and delivery system unusable: e.g. earthquake, landslide, flood?
- d. Will soil and water management investments required to stabilize the catchment be commensurate with the scale/cost of the water storage investment?
- e. Is the site free of unresolved conflicts with other users of the identified water supply?

If the answer to all of the Step 1 questions is “YES”, proceed to Step 2.

17. Step 2: Irrigated area and beneficiary community

- a. Are the proposed irrigation area(s) free of cultural relics or other protected areas, and is the distance of any relics or resources from the irrigated area(s) greater than the rules stipulated by the local authority?
- b. Is the proposed irrigation area free of any existing intensive agriculture, horticulture or livestock activity? (the project should not replace existing high value production)
- c. Is the proposed irrigation area classified for agriculture use and are the soils and topography suitable for irrigated intensive subtropical horticulture production?
- d. Is the beneficiary community committed to develop intensive irrigated subtropical horticulture production?
- e. Is the beneficiary community committed to establishing a Water User Association with a view to its management of the irrigation system, including cost recovery?

If the answer to all of the step 2 questions is “YES”, proceed to Step 3.

18. Step 3: Social, economic and financial viability

- a. Can the irrigation system be established on land that is privately used for farming, residence, grazing or other purposes without compulsory acquisition or the implementation of involuntary resettlement?
- b. Is the proposed horticulture investment economically and financially viable?

19. If the answer to all of the step 3 questions is “YES” then the subproject can be shortlisted. The long list of compliant schemes will be ranked based on a series of indicators to identify a priority shortlist of subprojects for detailed engineering design. Indicators for subproject ranking are detailed in Annex 1.

## **VI. MINOR IMPACTS AND MITIGATION MEASURES**

20. The project is categorized as “C” because there will be minimal environmental impacts of the PRF to the pilot project areas. The PRF consists of small construction and installation activities of storage tanks, intake structures, distribution pipes and conveyance system, and mostly rehabilitation. The PRF locations are within agricultural lands and not proximate to any protected and sensitive areas. During the screening stage, potential environmental risks are increase of dust and occupational health and safety issues during project implementation.

21. The following environmental risks are identified during the screening pahse , and potentially occur during the implementation of the pilot-test irrigations schemes. These are:

- (i) Occupational health and safety risk from the excavation of drains/ channels, construction of channels and overhead water storage tanks, material handling, and electrical fittings.
- (ii) Potential accidents/incidents- falls, slip, trip, electrocution, fire in paints, etc.
- (iii) Air pollution (dust generation risk) for transportation, deposition of excavated earth and use of diesel generator (DG) sets.
- (iv) Noise pollution due to use of DG sets and concrete mixers
- (v) Potential water pollution due to indiscriminate disposal of waste to water bodies
- (vi) Soil Contamination from paint wastes

- (vii) Damage to vegetation due to proximity to forest or thick land covered areas
- (viii) Sanitation issue (domestic waste generation) due to involvement of many labour involvement
- (ix) Tree cutting at horticulture land if any required in the field
- (i) Land use issues such as indiscriminate dumping of wastes

22. To mitigate the potential impacts shown above, the DOH and DIPH will take necessary steps to execute mitigation measures. The table below shows the potential risks and impacts of the project, and corresponding measures to mitigate them.

**Table 2. Environment safeguard measures to mitigate the risks and impacts.**

Potential environmental risks and impacts	Mitigation Measures.
Occupational health and safety risk from the excavation of drains/ channels, construction of channels and overhead water storage tanks, material handling, and electrical fittings.  Potential accidents/incidents- falls, slip, trip, electrocution, fire in paints, etc.	Create awareness for adopting safe working practices like use of safety belts, boots, gloves, and use of fire extinguishers. The contractor will provide first aid kit at every construction site.  Provide the personal protective equipment (PPE) to workers. Provide signage and barricading to construction area. Take extra precautions for man and material movement to weir construction sites
Potential accidents/incidents- falls, slip, trip, electrocution, fire in paints, etc.  Air pollution (dust generation risk) for transportation, deposition of excavated earth and use of diesel generator (DG) sets.	Heavy equipment and machinery shall be fitted with air pollution control and noise dampening devices that are operating correctly. Stockpiled sand and soil shall be slightly wetted before loading, particularly during windy weather. Vehicles transporting sand and soil shall be covered with tarpaulin. Stockpiled sand should be sprinkled regularly with water, and dust suppression measures be taken to contain air pollution. All heavy equipment shall strictly follow the noise regulations.
Noise pollution due to use of DG sets and concrete mixers	Diesel Power Generating set shall conform to stack height criteria and will be fitted with acoustic enclosures.  Provide barricade for noise attenuations and PPE (e.g. ear plugs) to workers.  Concrete mixers shall be used in daytime only.
Potential water pollution due to indiscriminate disposal of waste to water bodies	No waste construction will be allowed to be disposed in any of water resources.
Soil Contamination from paint waste	All hazardous substance as defined by Central Pollution Control Board shall be purchased, transported, stored, used and disposed as per established Hazardous Waste Management Rules 1989.  Paint mixing shall be done only at concrete floor. Empty containers to be disposed as per above rules.
Damage to vegetation due to proximity to forest or thick land covered areas	Ensure that no damage is made to vegetation of such areas including for any temporary need like fuel wood.

	Liquid petroleum gas (LPG) for food preparation to workers
Sanitation issue (domestic waste generation) due to involvement of many labour involvement	The contractor shall make provision of supply of safe drinking water for workers. Mobile toilets will be provided for workers fitted with water tank and anerobic digestion system
Tree cutting at horticulture land if any required in the field	Ensure that there is no tree cutting during construction. If unavoidable, the project should obtain prior permission from concerned authority for cutting of any tree at weir site or horticulture field when required.
Land use issues such as indiscriminate dumping of wastes	<p>Re-use the excess materials from the construction work. All other excess materials should be disposed of in depressions and land fields that will not promote instability and result in destruction of property, vegetation, irrigation and drinking water supply system.</p> <p>Extreme care should be taken to avoid disposal, whether on the land or for the area that will cause inconvenience or deprive local residents of their livelihood.</p> <p>Ensure that waste disposal happens to designated disposal location only.</p>

23. Since the project is category C for environment based on ADB SPS 2009 classification, the PRF is not required to prepare an environmental assessment and environmental management plan (EMP). Due to the pilot-test irrigation schemes, DOH and DIPH need to mitigate these minor impacts as shown previously. To execute environment safeguard activities, the PRF will have bidding documents that will instruct contractors to perform actions in mitigating the potential risks and impacts.

24. As part of the institutional support during PRF implementation, construction supervision engineers will be recruited for monitoring the construction of irrigation works packages. Aside from monitoring the construction progress and ensuring quality construction, the engineers will ensure the contractors to meet safeguard requirements for the protection of the environment, and adherence to the employer's requirements relevant to environment mitigation measures. Based on ADB SPS, category C projects are not required to submit environment monitoring reports. However, the Mission suggested to the PMU to include updates of the contractors' compliance to environment safeguard mitigation measures as part of the quarterly progress reports (QPRs)

**Annex 1: Criteria and ranking to be applied to the prioritization of irrigation scheme investments.**

<b>Criteria</b>	<b>Percentage Score</b>
<b>A Water availability and demand</b>	<b>20%</b>
Adequacy of monthly river flows to satisfy the proposed demands based on rainfall runoff models supported by river flow measurements from the catchment or transposition from a nearby gauged catchment.	10
Likelihood of conflict with other water users on the river based on a water balance.	5
Adequacy of river flows based on an evaluation of future climate change risk models over a 30 year planning horizon.	5
<b>B Irrigation infrastructure and readiness criteria</b>	<b>20%</b>
Availability of usable existing irrigation infrastructure already on site.	5
Availability of existing surveys, planning studies and detailed design.	2
Cost-reducing subproject features including gravity distribution, lack of engineering difficulty, suitable slopes in the distribution area to facilitate irrigation, etc.	5
Extent of infrastructure risk due to factors such as flood damage, boulder impact, river sediment loads, river morphology uncertainty at the intake, soil and slope conditions for the pipe systems and difficulties of access during construction and operation.	8
<b>C. Horticulture and farming motivation</b>	<b>15%</b>
Evaluation of soil suitability for growing the target horticulture crops.	8
Are the target horticulture crops are being successfully grown on adjacent lands?	2
Assessment of the motivation of the farmers towards high density horticulture and whether they have proposed a sensible plan for supporting themselves until crop maturation.	3
Assessment, due to farmer age, of whether there are succession plans for sustainable farm handover during the project planning horizon	2
<b>D. Marketing indicators</b>	<b>15%</b>
Financial and economic returns from planned crop interventions.	7
Current production of project-planned crops in the block/district.	2
Preparedness of farmers to collaborate to add value to crops and gain greater market share	3
Preparedness of value chain “gatekeepers”, with project support, to partner with farmer producer organizations to develop integrated value chains.	3
<b>E. Institutional aspects</b>	<b>10%</b>
Current manpower in the DOH and DIPH organisations to manage the subproject with regard to current and expected workloads.	2
Likely support from local government to support the subproject in helping to resolve any local issues.	2
Capability of the DOH and DIPH in the proposed scheme management following construction based on current management of existing schemes.	2
Willingness of farmers to form WUAs to manage the scheme distribution systems and stage of development of such an organization at present.	4
<b>F. Social safeguards and other aspects</b>	<b>10%</b>
Extent of permissions needed to ensure infrastructure can be placed on or through private property.	3
Response of the local community towards granting such permissions.	2
Current participation of women in community farming and irrigation organisations.	3
Ratio of young people to older people to guarantee sustainable farming in the future.	2



<b>Criteria</b>	<b>Percentage Score</b>
<b>G. Other environmental safeguards</b>	<b>10%</b>
Existence of an environmental impact analysis (EIA) or other environmental evaluation of the subproject.	2
Extent of animal menace to the proposed subproject.	3
Whether there is a risk to the irrigation infrastructure crossing steep slopes due to landslips or earthquakes.	5
<b>Total</b>	<b>100%</b>

**Attachment G. Sample Memorandum of Understanding (MoU) for Donation of Farmers' Land under the Himachal Pradesh Subtropical Horticulture, Irrigation, Value Addition and Readiness (HPSHIVA-R) project**

**Memorandum of Understanding for Land Donation**

**(On Stamp Paper)**

This memorandum of understanding is made on \_\_\_\_\_ day of \_\_\_\_\_ 2020 between Sri/Srimati \_\_\_\_\_ resident of \_\_\_\_\_ (hereinafter referred to as "the First Party") and the HP Department of Horticulture/ Department of Irrigation and Public Health through Sri/Srimati \_\_\_\_\_ (designation) \_\_\_\_\_ (hereinafter referred to as "the Second Party").

**THESE PRESENT WITNESS AS FOLLOW:**

1. That the First Party is landowner(s) with transferable right of \_\_\_\_\_ hectare of land bearing khasra No/s. \_\_\_\_\_ in village \_\_\_\_\_ Block \_\_\_\_\_, tehsil \_\_\_\_\_, district \_\_\_\_\_, state \_\_\_\_\_
2. That the First Party has taken part in the transect walk conducted under the requirement of the \_\_\_\_\_ under Himachal Pradesh Sub-tropical Horticulture, Irrigation and Value Addition (HP-SHIVA) Project and has understood the benefits of obtaining irrigation water for my land and the village.
3. That the First Party hereby grants his/her consent to the Second Party, out of its free will, for construction and development of irrigation facilities under HP-SHIVA in the cluster \_\_\_\_\_ under \_\_\_\_\_ Panchayat for personal gain and the benefit of the villagers and the public at large.
4. That the Second Party disseminated all the benefits including financial assistance entitled for the temporary acquisition (use of) said land as per the project entitlement matrix.
5. That the First Party declines to receive their compensation entitlement, amounting to Rs. \_\_\_\_\_ for which the First Party is eligible and entitled as mentioned in Clause 4 of this MOU and would not claim any compensation for the purposes mentioned in Clause 3.
6. That the Second Party shall construct and develop the irrigation facilities under HP-SHIVA Project and take all possible precautions to avoid damage to the adjacent land.
7. That the First Party also assures the Second Party that the first party will not indulge in any willful act of damaging the irrigation facilities under HP-SHIVA or obstructing the use thereof.
8. That both the Parties hereto agree that the irrigation facilities so constructed/ developed under HP-SHIVA shall be public property.
9. That the provisions of the MEMORANDUM OF UNDERSTANDING will come into force and effect from the date of signing of this deed.

**IN WITNESS WHEREOF** the Parties hereto have signed this deed on the day and the year as written above.

Signatures of the First Party

\_\_\_\_\_

Signature for and on behalf of the Second Party

\_\_\_\_\_

Witnesses:

1. \_\_\_\_\_

2. \_\_\_\_\_

(Signature, name and address)

Witnesses:

1. \_\_\_\_\_

2. \_\_\_\_\_

(Signature, name and address)

*Note: The witnesses will include the President of WUA. More witnesses can be added –including NGOs, village elders etc.*

## Attachment H. Involuntary Resettlement Impact Categorization Checklist

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
<b>Involuntary Acquisition of Land</b>				
1. Will there be land acquisition?				
2. Is the site for land acquisition known?				
3. Is the ownership status and current usage of land to be acquired known?				
4. Will easement be utilized within an existing Right of Way (ROW)?				
5. Will there be loss of shelter and residential land due to land acquisition?				
6. Will there be loss of agricultural and other productive assets due to land acquisition?				
7. Will there be losses of crops, trees, and fixed assets due to land acquisition?				
8. Will there be loss of businesses or enterprises due to land acquisition?				
9. Will there be loss of income sources and means of livelihoods due to land acquisition?				
<b>Involuntary restrictions on land use or on access to legally designated parks and protected areas</b>				
10. Will people lose access to natural resources, communal facilities and services?				
11. If land use is changed, will it have an adverse impact on social and economic activities?				
12. Will access to land and resources owned communally or by the state be restricted?				
<b>Information on Displaced Persons:</b>				
Any estimate of the likely number of persons that will be displaced by the Project? [ ] No [ ] Yes If yes, approximately how many? _____				
Are any of them poor, female-heads of households, or vulnerable to poverty risks? [ ] No [ ] Yes				
Are any displaced persons from indigenous or ethnic minority groups? [ ] No [ ] Yes				

Note: The project team may attach additional information on the project, as necessary.