United Nations Development Programme

Project title: Sustainable management and restoration of degraded landscapes for achieving Land Degradation Neutrality (LDN) in India		
Country: India	**Implementing Partner (GEF Executing Entity):** Ministry of Environment, Forest and Climate Change (MoEFCC)	**Execution Modality:** Assisted NIM
Contributing Outcome (UNDAF/CPD, RPD, GPD): By 2022, environmental and natural resource management is strengthened, and communities have increased access to clean energy and are more resilient to climate change and disaster risks.[1]		
UNDP Social and Environmental Screening Category: Substantial	**UNDP Gender Marker:** GEN2	
Quantum Award ID: 00130865.1	**Quantum Project/Output ID: 00130865**	
UNDP-GEF PIMS ID number: 6670	**GEF Project ID number: 10876**	
LPAC meeting date: 20 October 2023		
Last possible date to submit to GEF: 10 December 2022		
Latest possible CEO endorsement date: 10 June 2023		
Project duration in months: 60 months (5 years)		
Planned start date: 1 February 2024	**Planned completion date:** 31 January 2029	
Expected date of Mid-Term Review: 31 July 2026	**Expected date of Terminal evaluation:** 31 October 2028	
Expected Operational Closure Date: 31 October 2029	**Expected Financial Closure date:** 30 April 2030	

[1] UNSDF outcome 6. Also, in the DP/DCP/IND/3 Country programme document for India (2018-2022) as a UNSDF Outcome involving UNDP

Brief project description:

With 2.4% of global land area, India supports 16.7% of global human population, and with 0.5% of the world's grazing area, it supports 18% of global cattle population. About 70% of its geographical area falls within drylands (arid, semi-arid and dry sub-humid) as per Thornthwaite classification, and these lands are all facing some level of land degradation as a result of climatic and anthropogenic factors. The main degradation processes are vegetation degradation, water erosion, wind erosion, salinity and water logging. The main causes of degradation include: poor agricultural practices such as improper crop rotations, overuse of agrochemicals etc.; soil erosion which leads to surface runoff and removal of topsoil; vegetation degradation through activities such as deforestation, shifting cultivation, overgrazing etc. Land degradation has direct correlation with the loss of livelihood, as a large part of the population is still dependent on natural resources for their livelihood.

Though, India, being party to the three Rio Conventions, has a strong legal and policy framework for the conservation of rich biological resources, removing several barriers can greatly improve the effectiveness of multi-stakeholder action for addressing land degradation, climate change, achieving land degradation neutrality and reducing biodiversity loss. Key barriers include the following: (i) Lack of landscape level policy coherence across sectors to provide a supportive enabling environment for achieving LDN, NDCs and National Biodiversity Targets (NBTs), (ii) Insufficient coordination across sectors and landscape-wide geographies to identify and resolve LDN challenges, (iii) Conflicts in resource management at the local level, (iv) Lack of adopted and proven technical methodologies and practices to support LDN across a range oflandtypesandcontexts, (v) Lack of evidence and data that can help decision-makers and local communities identify and monitor the benefits of innovative SLM approaches and technologies, (vi) Insufficient documentation and sharing of knowledge gained from demonstrations, including South-South cooperation, on best practices and lessons learned. In light of these significant barriers, a number of challenges are expected to persist in the absence of a GEF project, limiting achievement of its LDN targets and uptake of SLM practices across India. The Government of India sees this project as a strategic opportunity to address the barriers and root causes of land and forest degradation while achieving impact at a meaningful scale.

The project will take a three-pronged approach starting with strengthening the enabling environment for LDN; followed by support to develop and implement SLM practices, and scaling up of resilient SLM practices across degraded landscapes in 6 pilot districts; two each from Gujarat (Kachchh and Banaskantha), Maharashtra (Nandurbar and Aurangabad) and Karnataka (Kodagu and Bagalkot) States; and developing information and knowledge management systems; national outreach approaches; and enhanced South-South cooperation. These three components will be underpinned by monitoring, evaluation and dissemination and communication of lessons learned supporting behavioural and institutional change that leads to adoption and implementation of LDN principles at district, state and national level, and balancing of gains and losses of productive land across the six pilot districts to achieve LDN. The project will maximize social and environmental outcomes through rigorous risk screening, assessment and management, in line with UNDP's Social and Environmental Standards Policy.

FINANCING PLAN	
GEF Trust Fund grant	USD 6,600,000
UNDP TRAC resources	0
Confirmed cash co-financing to be administered by UNDP	0
(1) Total Budget administered by UNDP	**USD6,600,000**
(2) Total confirmed co-financing to this project not administered by UNDP	**USD**34,245,644
(3) Grand-Total Project Financing (1)+(2)	**USD40,845,644**

SIGNATURES:		
Signature: Ministry of Finance, Government of India	**Agreed by Government Development Coordination Authority**	Endorsed by Department of Economic Affairs, Ministry of Finance (Approved Minutes of the LPAC Meeting held on 20th October 2023 attached)

Signature: Shri. Bivash Ranjan, Additional Director General (Wildlife), Ministry of Environment, Forest and Climate Change	**Agreed by Implementing Partner**	**Date/Month/Year:** 31 January, 2024 31/01/2024
Signature: Ms Isabelle Tschan Harada, Resident Representative a.i, UNDP India	**Agreed by UNDP**	**Date/Month/Year:** 31/01/2024

STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE GOVERNMENT OF INDIA FOR THE PROVISION OF SUPPORT SERVICES

For GoI-UNDP-GEF "Sustainable management and restoration of degraded landscapes to achieve Land Degradation Neutrality (LDN) in India" project (2023-2028)

Dear ,

1. Reference is made to consultations between officials of the Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India (hereinafter referred to as "MoEFCC") and the officials of UNDP with respect to the provision of support services by the UNDP Country Office for the project entitled "Sustainable management and restoration of degraded landscapes to achieve Land Degradation Neutrality (LDN) in India". UNDP and the MoEFCC hereby agree that the UNDP Country Office may provide such support services at the request of the MoEFCC designated in the relevant project document, as described below.

2. The UNDP Country Office may provide support services for assistance with reporting requirement and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the MoEFCC is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP Country Office in providing such support services shall be recovered from the administrative budget of the office.

3. The UNDP Country Office may provide, at the request of the MoEFCC, the following support services for the activities of the GoI-UNDP-GEF project entitled "Sustainable management and restoration of degraded landscapes to achieve Land Degradation Neutrality (LDN) in India":

   (a) Logistics- Travel support to technical staff;
   (b) Human Resources – Identification and/or recruitment of project and programme personnel including international consultants to include sourcing, contracting and payment;
   (c) Financial reporting requirement and direct payments;
   (d) Procurement – Identification and facilitation of training activities and awarding contracts to selected agencies.

4. The procurement of goods and services and the recruitment of the project personnel by the UNDP Country Office shall be in accordance with the UNDP regulations, rules, policies, and procedures. Support services described in paragraph 3 shall be detailed in an annex to the programme support document or the project document. If the requirements for support services by the Country Office change during the life of the project, the annex to the programme support document or project document is revised with the mutual agreement of the UNDP Resident Representative and the MoEFCC.

5. The relevant provisions on liability and privileges and immunities of UN Privileges and Immunities Act shall apply to the provision of the Letter of Agreement. The MoEFCC shall retain overall responsibility for the nationally managed project through its designated institution. The responsibility of the UNDP Country Office for the provision of the support services detailed in the annex to the programme support document or project document.

6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP Country Office in accordance with this letter shall be handled pursuant to the relevant provisions of the Government of India – UNDP Partnership Agreement.

7. The manner and method of cost-recovery by the UNDP Country Office in providing the support services described in paragraph 3 above shall be specified in the annex to the programme support document or project document of the GoI-UNDP-GEF project entitled "Sustainable management and restoration of degraded landscapes to achieve Land Degradation Neutrality (LDN) in India".

8. The UNDP Country Office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon signature, this letter shall constitute an agreement between the MoEFCC and UNDP on the terms and conditions for the provision of support services by the UNDP Country Office for the GoI-UNDP-GEF project entitled "Strengthening Institutional Capacities to Secure Biodiversity Conservation Commitments".

Yours sincerely,

Signed on behalf of UNDP
Isabelle Tschan Harada,
Resident Representative a.i, UNDP India

B Ranjan
31/01/2024

For the Government of India
Shri. Bivash Ranjan
Additional Director General (Wildlife)
Ministry of Environment, Forest and Climate Change
Indira Paryavaran Bhawan
Date:

Annex: Description of UNDP Country Office Support Services

In accordance with the provisions of the Letter of Agreement signed on _____ and the Project Document, the UNDP Country Office shall provide support services for the Project as described below:

Support Services	Cost to UNDP of providing such support services (where appropriate) (in USD)	Amount and method of reimbursement to UNDP (UNDP with charge direct project costs directly to the project budget)
(a) Logistics and Travel Services This includes travel management and arrangements for workshop and conferences, high level missions, requisition, service provider management, reconciliation, reporting, and processing refund of entitlements.	Annually for 5 years **USD 13,151.36**	Reimbursement for the services costed will be based on submission of the bills from the service providers as agreed and approved prior to the travel.
(b) Human Resources: Staff and Personnel Management • Staff selection and recruitment process advertising, shortlisting, and interviewing (one-time action) • Staff benefits administration and management (one time + monthly recurring action) • Staff payroll, vendor management, banking reconciliation and reporting (monthly and periodic actions)	Annually for 5 years **USD 29,564.2**	Reimbursement for services costed will be done annually upon satisfactory completion of the ToRs and deliverables as agreed and approved prior to the initiation of the assignment.
(c) Finance Payment processes	Annually for 5 years **USD 7,804**	To be made as and when bills are produced by the service providers as agreed and approved prior to the tasks.
(d) Procurement of consultants, goods and services This includes developing scope of work/terms of reference, advertisement, preliminary review, evaluation, vendor management, contracting, commitment of funds and contract closing of low, intermediate, and high value procurement and recruitment of Individual Consultants.	Annually for 5 years **USD 13,598.36**	Reimbursement for services costed will be made as per satisfactory completion of the deliverables by third party agencies as agreed and approved prior to the services/work.
TOTAL DPC AMOUNT (Over the time frame of the project 2023-2028)	**USD 64,117.92**	Actual charge will be based on UPL or actual cost of the service.

United Nations Development Programme

Project title: Sustainable management and restoration of degraded landscapes for achieving Land Degradation Neutrality (LDN) in India		
Country: India	**Implementing Partner (GEF Executing Entity):** Ministry of Environment, Forest and Climate Change (MoEFCC)	**Execution Modality***:* Assisted NIM
Contributing Outcome (UNDAF/CPD, RPD, GPD)*:* By 2022, environmental and natural resource management is strengthened, and communities have increased access to clean energy and are more resilient to climate change and disaster risks.[1]		
UNDP Social and Environmental Screening Category: Substantial	**UNDP Gender Marker:** GEN2	
Quantum Award ID: 00130865.1	**Quantum Project/Output ID: 00130865**	
UNDP-GEF PIMS ID number: **6670**	**GEF Project ID number: 10876**	
LPAC meeting date: 20 October 2023		
Last possible date to submit to GEF: 10 December 2022		
Latest possible CEO endorsement date: 10 June 2023		
Project duration in months: 60 months (5 years)		
Planned start date: 1 February 2024	**Planned completion date:** 31 January 2029	
Expected date of Mid-Term Review: 31 July 2026	**Expected date of Terminal evaluation**: 31 October 2028	
Expected Operational Closure Date: 31 October 2029	**Expected Financial Closure date:** 30 April 2030	

[1] UNSDF outcome 6. Also, in the DP/DCP/IND/3 Country programme document for India (2018-2022) as a UNSDF Outcome involving UNDP

Brief project description:

With 2.4% of global land area, India supports 16.7% of global human population, and with 0.5% of the world's grazing area, it supports 18% of global cattle population. About 70% of its geographical area falls within drylands (arid, semi-arid and dry sub-humid) as per Thornthwaite classification, and these lands are all facing some level of land degradation as a result of climatic and anthropogenic factors. The main degradation processes are vegetation degradation, water erosion, wind erosion, salinity and water logging. The main causes of degradation include: poor agricultural practices such as improper crop rotations, overuse of agrochemicals etc.; soil erosion which leads to surface runoff and removal of topsoil; vegetation degradation through activities such as deforestation, shifting cultivation, overgrazing etc. Land degradation has direct correlation with the loss of livelihood, as a large part of the population is still dependent on natural resources for their livelihood.

Though, India, being party to the three Rio Conventions, has a strong legal and policy framework for the conservation of rich biological resources, removing several barriers can greatly improve the effectiveness of multi-stakeholder action for addressing land degradation, climate change, achieving land degradation neutrality and reducing biodiversity loss. Key barriers include the following: (i) Lack of landscape level policy coherence across sectors to provide a supportive enabling environment for achieving LDN, NDCs and National Biodiversity Targets (NBTs), (ii) Insufficient coordination across sectors and landscape-wide geographies to identify and resolve LDN challenges, (iii) Conflicts in resource management at the local level, (iv) Lack of adopted and proven technical methodologies and practices to support LDN across a range of land types and contexts, (v) Lack of evidence and data that can help decision-makers and local communities identify and monitor the benefits of innovative SLM approaches and technologies, (vi) Insufficient documentation and sharing of knowledge gained from demonstrations, including South- South cooperation, on best practices and lessons learned. In light of these significant barriers, a number of challenges are expected to persist in the absence of a GEF project, limiting achievement of its LDN targets and uptake of SLM practices across India. The Government of India sees this project as a strategic opportunity to address the barriers and root causes of land and forest degradation while achieving impact at a meaningful scale.

The project will take a three-pronged approach starting with strengthening the enabling environment for LDN; followed by support to develop and implement SLM practices, and scaling up of resilient SLM practices across degraded landscapes in 6 pilot districts; two each from Gujarat (Kachchh and Banaskantha), Maharashtra (Nandurbar and Aurangabad) and Karnataka (Kodagu and Bagalkot) States; and developing information and knowledge management systems; national outreach approaches; and enhanced South-South cooperation. These three components will be underpinned by monitoring, evaluation and dissemination and communication of lessons learned supporting behavioural and institutional change that leads to adoption and implementation of LDN principles at district, state and national level, and balancing of gains and losses of productive land across the six pilot districts to achieve LDN. The project will maximize social and environmental outcomes through rigorous risk screening, assessment and management, in line with UNDP's Social and Environmental Standards Policy.

FINANCING PLAN	
GEF Trust Fund grant	USD 6,600,000
UNDP TRAC resources	0
Confirmed cash co-financing to be administered by UNDP	0
(1) Total Budget administered by UNDP	**USD 6,600,000**
(2) Total confirmed co-financing to this project not administered by UNDP	**USD** 34,245,644
(3) Grand-Total Project Financing (1) + (2)	**USD 40,845,644**

SIGNATURES:		
Signature: Ministry of Finance, Government of India	**Agreed by Government Development Coordination Authority**	Endorsed by Department of Economic Affairs, Ministry of Finance (Approved Minutes of the LPAC Meeting held on 20th October 2023 attached)

Signature: Shri. Bivash Ranjan, Additional Director General (Wildlife), Ministry of Environment, Forest and Climate Change	**Agreed by Implementing Partner**	**Date/Month/Year:**
Signature: Ms Isabelle Tschan Harada, Resident Representative a.i, UNDP India	**Agreed by UNDP**	**Date/Month/Year:**

I. TABLE OF CONTENTS

I. Table of Contents 4
II. Development Challenge 9
III. Strategy 30
IV. Results and Partnerships 38
V. Project Results Framework 71
VI. Monitoring and Evaluation (M&E) Plan 74
VII. Governance and Management Arrangements 91
VIII. Financial Planning and Management 99
IX. Total Budget and Work Plan 104
X. Legal Context 119
XI. Risk Management 120
XII. Mandatory Annexes 123

Abbreviations and Acronyms:

AIBP	Accelerated Irrigation Benefit Programme
AMSL	Above Mean Sea Level
ANGRAU	Acharya N. G. Ranga Agricultural University
BIOFIN	Biodiversity Finance
BURs	Biennial Update Reports
CAMPA	Compensatory Afforestation Fund Management and Planning Authority
CBBOs	Cluster Based Business Organizations
CSS	Centrally Sponsored Schemes
CCSAMMN	Climate Change and Sustainable Agriculture: Monitoring, Modelling and Networking
CDB	Coconut Development Board
CFL	Center for Fruitful Lands
CFQC&TI	Central Fertilizer Quality Control & Training Institute
CGIAR	Consultative Group on International Agricultural Research
CIA	Centre for Innovation and Agripreneurship
CIAT	International Center for Tropical Agriculture
CIH	Central Institute for Horticulture
CILI	Collectives for Integrated Livelihood Initiatives
CoE	Center of Excellence
CPRs	Common Property Resources
D4R	Diversity for Restoration
DAY	Deendayal Antayodaya Yojana
DDP	Desert Development Plan
DLD	Desertification and Land Degradation
DOLR	Department of Land Resources
DPAD	Drought Prone Area Development
ESMF	Environmental and Social Management Framework
FDA	Forest Development Agencies
FDRVCs	Foundation for Development of Rural Value Chains
FFC	Fourteenth Finance Commission
FPIC	Free Prior Informed Consent
FPOs	Farmer Produce Organizations
FSCs	Forest Science Centres
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIM	Green India Mission
GIS	Geographical Information System
IA	Implementing Agencies
ICAR	Indian Council of Agricultural Research

IIMR	Indian institute of Millet Research
INDCs	Intended Nationally Determined Contributions
ISRO	Indian Space Research Organisation
IWMP	Integrated Watershed Management Programme
JFM	Joint Forest Management
JISL	Jain Irrigation Systems Limited
KAP	Knowledge, Attitude and Practices
KAU	Kerala Agriculture University
KMCS	Knowledge Management and Communications Strategy
KVKs	Krishi Vigyan Kendras
LDN	Land Degradation Neutrality
LDN	Land Degradation Neutrality
M&E	Monitoring and Evaluation
METT	Management Effectiveness Tracking Tool
MFP	Minor Forest Produce
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MIDH	Mission for Integrated Development of Horticulture
MIF	Micro Irrigation Fund
MMA	Macro Management of Agriculture
MOA&FW	Ministry of Agriculture and Farmers' Welfare
MoEFCC	Ministry of Environment, Forest and Climate Change
MORD	Ministry of Rural Development
MSP	Minimum Support Price
MTR	Mid-Term Review
NABARD	National Bank for Agriculture and Rural Development
NAEB	National Afforestation and Eco-Development Board
NAFED	National Agricultural Cooperative Marketing Federation of India
NAP	National Action Plan
NAPCC	National Action Plan on Climate Change
NBM	National Bamboo Mission
NBSAP	National Biodiversity Strategic Action Plan
NBSSLUP	National Bureau of Soil Survey and Land Use Planning
NBTs	National Biodiversity Targets
NCDC	National Cooperative Development Corporation
NCOF	National Centre of Organic Farming
NDC	National Development Council
NDCs	National Determined Contributions
NERAMAC	North Eastern Regional Agricultural Marketing Corporation Limited
NFSM	National Food Security Mission
NGT	National Green Tribunal
NHM	National Horticulture Mission
NIM	National Implementation
NLCB	National Land Use and Conservation Board

NLM	National Livestock Mission
NMB	National Horticulture Board
NMBP	National Mission on Bovine Productivity
NMMI	National Mission on Micro Irrigation
NMSA	National Mission for Sustainable Agriculture
NMSA	National Mission on Sustainable Agriculture
NMSKCC	National Mission on Strategic Knowledge for Climate Change
NPBB	National Programme for Bovine Breeding
NRAA	National Rainfed Area Authority
NRLM	National Rural Livelihoods Mission
NRM	Natural Resource Management
NRSA	National Remote Sensing Agency
NSTFDC/SSTFDC	National/State Scheduled Tribes Finance and Development Corporation
NTFP	Non-Timber Forest Produce
NWDB	National Wastelands Development Board
NWDP	National Watershed Development Program
NWDPRA	National Watershed Development Project for Rainfed Areas
NWM	National Water Mission
OFP	Operational Focal Point
OFWM	On Farm Water Management
PACDA	Protected Area Capacity Development Advisor
PACDS	Protected Area Capacity Development Specialist
PES	Payments for Ecosystem Services
PGS	Participatory Guarantee System
PIMS	Project Information Management System
PIR	Project Implementation Review
PMC	Project Management Costs
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
PMUs	Project Management Units
POPP	Programme and Operations Policies and Procedures
PRAP	Participatory Rural Appraisal and Planning
R-ABI	RKVY-RAFTAAR Agribusiness Incubators
RAFTAAR	Remunerative Approach for Agriculture and Allied Sector Rejuvenation
RCN	Regional Cooperation Networks
REDD	Reducing Emissions from Deforestation and forest Degradation
RGM	Rashtriya Gokul Mission
RPS	Reclamation of Problem Soil
RS	Remote Sensing
RWHS	Rain Water Harvesting Structures
SAC	Space Applications Centre
SAUs	State Agricultural Universities
SDCFPOs	Supporting Dairy Cooperatives and Farmer Producer Organizations
SDGs	Sustainable Development Goals

SESA	Strategic Environmental and Social Assessment
SFAC	Small Farmers Agri-Business Consortium
SFACH	Small Farmers Agri-Business Consortium Haryana
SFM	Sustainable Forest Management
SHCs	Soil Health cards
SHM	State Horticulture Missions
SIA	State Implementing Agencies
SLM	Sustainable Land Management
SLUSI	Soil and Land Use Survey of India
SME	Small and Medium Enterprises
SO	Strategic Objective
STDCC	State Tribal Development Cooperative Corporations
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TBWP	Total Budget and Work Plans
TE	Terminal Evaluation
TERI	The Energy and Resources Institute
TGA	Total Geographic Area
TNAU	Tamil Nadu Agriculture University
TN-SFAC	Tamil Nadu-Small Farmers Agri-Business Consortium
TPN	Thematic Programme Network
TPP	Transformative Projects and Programmes
TRIFED	Tribal Cooperative Marketing Development Federation of India Ltd.
UNCCD	United Nations Convention on Combating Desertification
UPL	United Phosphorous Limited
UT	Union Territory
VDVK	Van Dhan Vikas Karyakram
VVK	Van Vigyan Kendra
WDD	Watershed Development Department
ZBNF	Zero Budget Natural Farming

II. DEVELOPMENT CHALLENGE

- Desertification/ land degradation is an issue of global concern, as it threatens not only the productivity of land but also water quality, human health and the fundamentals of ecosystems on which all life depend. It has also close connection with other major global issues, particularly climate change and biodiversity. It has been estimated that globally around 24 billion tons of fertile soil and 27,000 bio-species are lost each year. Land degradation has multiple and complex impacts on the global environment through a range of direct and indirect processes affecting a wide array of ecosystem functions and services. Land degradation, thus, interrupts the regulating and provisioning services of ecosystems, in particular nutrient cycling, the global carbon cycle and the hydrological cycle. While land degradation is acutely felt in the world's arid lands, some 80% is occurring outside these areas.

- With a land area of 328.72 m ha, India is endowed with several climatic zones, diverse ecological regions (Box 1), as well as numerous and varied land and water resources. One of the seventeen mega diverse countries, India holds almost 8% of global biodiversity and is an acknowledged Centre of crop diversity and crop wild relatives with 4 of the 34 global biodiversity hotspots (Box 2). This unique biodiversity is under immense threat due to growing biotic and abiotic factors and lack of understanding of the critical role that it plays in maintaining our life, livelihood and economy.

Box 1. Fifteen different agro-climatic zones have been identified that determine and influence the nature of agrobiodiversity use for SLM practices in these zones. Different sets of farming practices have evolved over centuries in different agro-ecological areas suited to the specific local climatic, edaphic and landscape.

- However, with barely 2.4% of the total land area of the world, the country has to support 16.7% of the total human population. India also has only 0.5% of the world's grazing area but supports 18% of the world's cattle population. About a third of the total feed intake of the ruminants in India is by grazing on common property resources (CPRs). The Thar Desert lies in the hot arid region of Western Rajasthan and is one of the most densely populated deserts of the world.

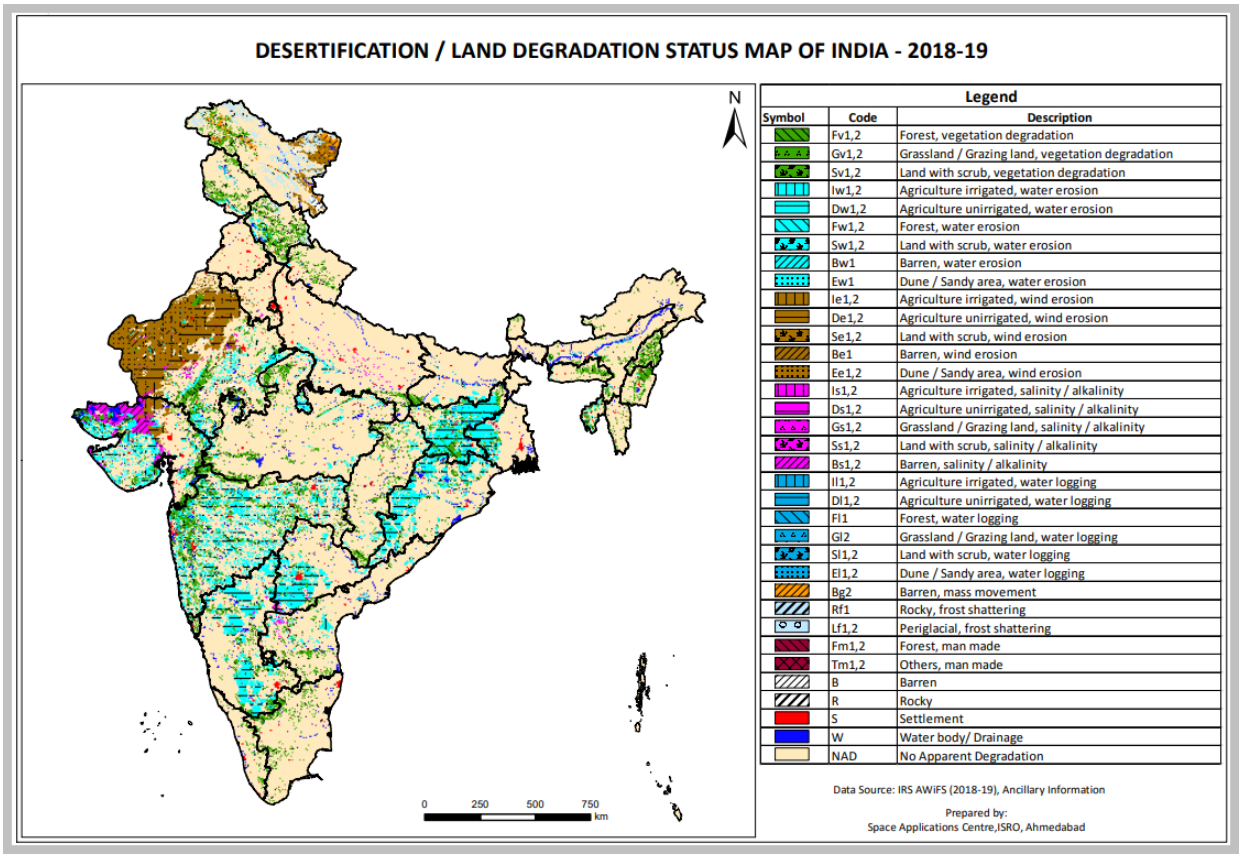
- Agriculture is the major sector of growth of the Indian economy (occupies 140.1 m ha of the total area of 328.7 m ha of the country). Around 70% of India's population lives in rural area, of this nearly 55 % of the population, particularly the vulnerable and disadvantaged groups of society, rely on agriculture and allied activities for their livelihood. The vast majority of Indian farmers are small and marginal and cultivate about 86.21% of the total land holdings comprising merely 47.34% of the total agricultural land (Agriculture Census 2015-16). Their farm size is decreasing further due to population growth. Of the total cultivated area, a major part of agriculture in the country is rainfed, extending to over 97 m ha and constituting nearly 68% of the net cultivated area. However, sustainable agricultural development and food security will be one of the key challenges for India in this century. Green Revolution remains the most defining phase of Indian agriculture in the last century. An input-intensive and technology-focused approach helped India avert potential famines and meet its food security needs by reducing food imports. While the Green Revolution has ensured India's self-sufficiency for major cereals needs and has touched most Indian farmers, its long-term impacts are now visibly evident. The economic viability of agriculture, social and economic equity for farmers, food and nutritional security for all, ensuring quantity and quality food at affordable prices are some of the major development goals of the country.

Box 2. Over 1,00,690 species of fauna and over 47,800 species of flora have been documented in the 10 Biogeographic Zones of the country. This diversity is hosted by many types of terrestrial and aquatic systems namely forests, wetlands, grasslands, deserts, coastal, and marine ecosystems.

- About 228 m ha of its geographical area (70%) fall within drylands (arid, semi-arid and dry sub-humid) as per Thornthwaite classification, and these lands are all facing some level of land degradation as a result of climatic and anthropogenic factors. Various studies, including one done by Space Application Centre, Ahmedabad in 2021, reveals that a large part of India's land mass is under land degradation and desertification. Successive studies also indicate that the process of land degradation is increasing. An ongoing MoEFCC sponsored national project entitled, "Desertification Status Mapping of India", being executed by the Space Applications Centre (SAC), Indian Space Research Organisation (ISRO), Ahmedabad along with 19 concerned Central/State government departments and

academic institutes, has produced the 'Desertification and Land Degradation Atlas of India'[2]. The Atlas is an inventory of state-wise areas of degraded land along with their process of degradation, severity and associated land use/land cover categories for 2018-19 (Figure 1). The Atlas also provides changes in terms of area undergoing degradation from 2003-05 to 2018-19.

Figure 1. Desertification/ Land Degradation Status of India



*(**Map disclaimer**: The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations or UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.)*

- The analysis reveals that 97.85 million ha area of the country is undergoing land degradation i.e., 29.77% of the total geographic area (TGA) of the country during 2018-19. The area undergoing DLD (desertification and land degradation) during timeframe 2011-13 and 2003-05 is observed as 96.40 million ha (29.32% of the TGA) and 94.53 million ha (28.76% of the TGA), respectively. A cumulative increase of 1.45 million ha area (0.44% of the TGA) undergoing DLD is observed from timeframe 2011-13 to 2018- 19 (Figure 2.). Whereas, from timeframe 2003-05 to 2011-13, a cumulative increase of 1.87 million ha area (0.57% of the TGA) is observed. Overall, around 23.79% (2018-19), 23.63% (2011-13) and 23.34% (2003-05) of the area undergoing DLD with respect to TGA of the country is contributed by Rajasthan, Maharashtra, Gujarat, Karnataka, Ladakh UT, Jharkhand, Odisha, Madhya Pradesh and Telangana (in descending order). All other remaining states are contributing less than 1% (individually) of the country TGA.
- Land degradation has direct correlation with the loss of livelihood in India, as a large part of the population is still dependent on natural resources for their livelihood. Adverse impacts of land degradation pose challenges such as low agro-productivity, environment loss, food security and overall quality of life of people. It also poses challenges like loss of biodiversity and climate change. Moreover, this can have far reaching impacts on the growth trajectory

[2] SAC. (2021). Desertification and Land Degradation Atlas of India (Assessment and analysis of changes over 15 years based on remote sensing). Space Applications Centre, ISRO. Ahmedabad, India. 282 pages.

of the country. The Energy and Resources Institute (TERI) in its recent study on economics of desertification and land degradation found that land degradation and land use change through various processes in India cost around 2.5 per cent of the country's GDP in 2014-15. It also found that almost 82 per cent of the estimated cost is on account of land degradation (the rest being from land use change), which indicates that it has severe adverse impact on food security and livelihood security of millions of people. Forest degradation accounts for 55% of the total cost of land degradation, agriculture for 16% and rangelands for 4% (Figure 3). The study also estimated total investment India requires for reclamation of land degraded by five major processes (water erosion, wind erosion, forest degradation, water logging and salinity) is Rs. 2948 billion (2014-15 price) to reclaim 94.53 mha degraded land as per newest survey of by SAC, Ahmedabad. This estimate analyses land degradation pattern between two surveys conducted in 2003 and 2011. In another estimate, the study analysed land degradation pattern based on three surveys conducted in 1995, 2003 and 2011 and calculated that India will require Rs. 3175 billion to reclaim 106.15mha degraded land by 2030.

Figure 2. Comparative status of total area and reasons for land degradation from 2011-13 to 2018-19

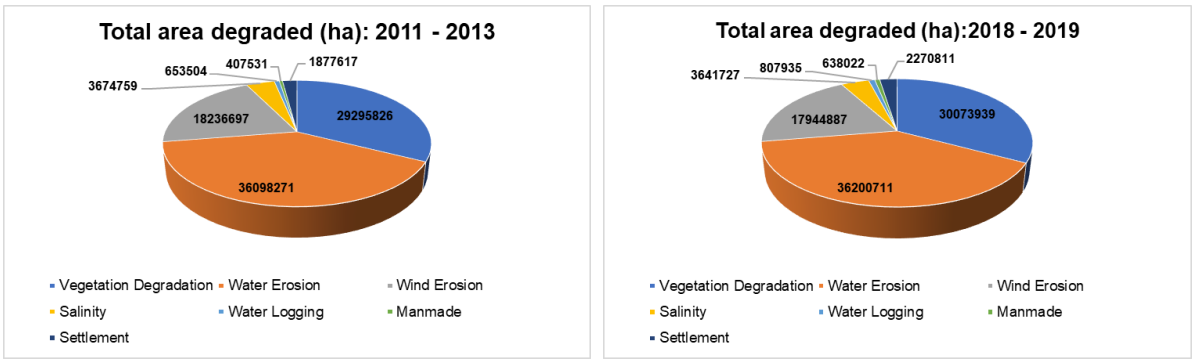
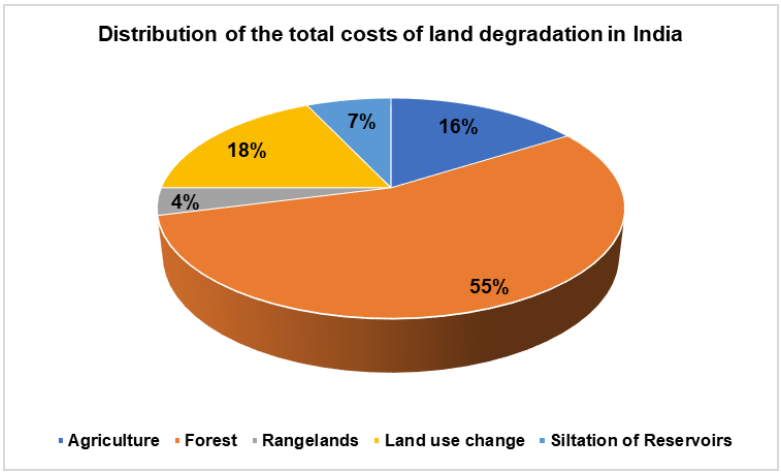


Figure 3. Distribution cost of land degradation restoration across diverse landscapes in India



Source: TERI, 2018[3]

Project landscapes

- Based on the information in the Desertification and Land Degradation Atlas of India, the project considers land use pattern, process of degradation (mainly vegetation degradation, water erosion, wind erosion, salinity and water

[3] The Energy and Resources Institute, 2018: Economics of Desertification, Land Degradation and Drought in India: Vol I: Macroeconomic assessment of the costs of land degradation in India, Prepared for Ministry of Environment, Forest and Climate Change, India.

logging), and severity level to identify project landscapes and focus interventions. The target landscapes include the following types of degraded lands: (i) agriculture irrigated, (ii) agriculture unirrigated, (iii) forest/ plantation, (iv) grassland/ grazing land, and (v) other land use categories, including land with scrub, as well as to some extent dune/ sandy area, barren areas, and surface water bodies. In selecting target states and their respective districts, care was taken to include all kinds of landscapes as described and such sites are included at least twice so that results across sites can be replicable. Accordingly, the project will target implementing its activities across two districts of three states of India (Gujarat, Karnataka and Maharashtra). The major reasons for land degradation (Table 1) and the detailed description for selecting the states and their respective districts are described below:

Table 1. State wise Status of Desertification/ Land Degradation measured during 2018-19 and 2011-13 (area in ha)

State Name	Vegetation Degradation		Water Erosion		Wind Erosion		Salinity		Water Logging	
	2018-19	2011-13	2018-19	2011-13	2018-19	2011-13	2018-19	2011-13	2018-19	2011-13
Gujarat	2322802	2,319,826	3833330	3,859,497	1174936	1,177,105	2598828	2,645,405	3375	3,375
Karnataka	1697479	1,712,386	5012171	5,043,041	2159	2,159	89122	86,740	-	-
Maharashtra	5142353	4,884,005	8217047	8,060,753	-	-	28713	29,089	-	-
Country Total	**30073939**	**29,298,553**	**36200711**	**36,099,042**	**17944887**	**18,233,594**	**3641727**	**3,674,759**	**807935**	**653,908**

Source: Desertification and Land Degradation Atlas of India (Space Application Centre, ISRO, 2021)

- **Gujarat:** Gujarat is the state with the third highest area under DLD with respect to country TGA and fourth highest with respect to state TGA. 52.22% (10.24 m ha) of the state's total geographical area is undergoing DLD for the period 2018-19. A slight decrease of 0.07% (13,584 ha) in the area undergoing DLD is observed from timeframe 2011-13 to 2018-19. The most significant process of DLD in the state is water erosion (19.53%), followed by salinity (13.24%), vegetation degradation (11.84%) and wind erosion (5.99%). Two districts have been identified for project interventions viz., Kachchh and Banaskantha. The major focus in Kachchh will be restoration of degraded grassland (Banni grassland) and in Banaskantha the focus will be on degraded agricultural landscapes.

Note: Site specific maps along with their respective geospatial coordinates of the project area are presented in **Annex III**. Also detailed profiles of target landscapes/districts are presented in **Annex XII (a)** - GEF Land Degradation Focal Area-Specific Annexe.

1) **Kachchh:** Kachchh district is located in western India, with its headquarters at Bhuj, covering an area of 45,674 km² and is the largest district of India. The population of Kutch is about 2,092,371. It has 10 *Talukas*, 939 villages and 6 municipalities. Project implementation will be in Bhuj *Taluka*.

2) **Banaskantha:** Banaskantha, a district situated in north-eastern Gujarat, occupies an area of 12,703 sq.km. and is named after the West Banas River that flows through the valley between Mount Abu and the Aravalli range into the plains of Gujarat and towards the Rann of Kutch. The district is situated in the north western part of the state and lies between north latitudes 23°33' & 24°25', and east longitude 71°07' & 73°02'.

- **Maharashtra:** Maharashtra is the state with second highest area under DLD with respect to country TGA, i.e., 46.49% (14.30 m ha) for period 2018-19. An increase of 1.56% (4,80,094 ha) in the area undergoing DLD is observed from 2011-13 to 2018-19, and from 2003-05 to 2011-13, the area undergoing DLD has increased by 1.55% (4,77,331 ha). The most significant process of DLD in the state is water erosion (26.70%) followed by vegetation degradation (16.71%) in 2018-19. Target project sites in Maharashtra include forest and agricultural (irrigated and unirrigated) landscapes and to some extent grasslands, covering the districts of Nandurbar and Aurangabad.

Note: Site specific maps along with their respective geospatial coordinates of the project area are presented in **Annex III**. Also detailed profiles of target landscapes/districts are presented in **Annex XII (a)** - GEF Land Degradation Focal Area-Specific Annexes.

1) **Nandurbar:** Nandurbar district, 4th largest tribal district of Maharashtra, belongs to Nashik Division of Maharashtra State situated between 73.31 and 74.32 East longitude and 21.03 and 22.00 North latitude. The district is surrounded by Madhya Pradesh State on the North, Dhule District on the East, Gujarat State in the West and Nashik district on the south. Nandurbar comprises of six talukas (Akkalkuva, Akrani, Nandurbar, Nawapur, Shahda, and Taloda) with total area of 5034 km^2. Project implementation will be across three Talukas (Akkalkuva, Dhadgaon and Taloda). The district forms part of Tapi and Narmada basins.

2) **Aurangabad:** Aurangabad district, situated in the north central part of Maharashtra between North Latitude 19° 15' and 20° 40, and East Longitude 74° 37' and 75° 52', is the most important district of Marathwada region and known as the gateway of Maharashtra. Located in the Godavari basin, the total geographical area of the district is 10107 km^2. It borders the districts of Nashik to the west, Jalgaon to the north, Jalna to the east, and Ahmednagar to the south. The district has 9 talukas including Aurangabad, Khulatabad, Soygaon, Sillod, Gangapur, Kannad, Phulambri, Paithan and Vaijpur. There are 1341 villages and 861 Gram Panchayats and approximately 56% of the population live in rural areas while 44% of the population live in urban areas. Project activities will be confined in two *Talukas* (Gangapura and Khulatabad). The district headquarters is located at Aurangabad town.

- **Karnataka:** Karnataka is located 11°30' North and 18°30' North latitudes and 74° East and 78°30' East longitude. It is situated on a tableland where the Western Ghats and Eastern Ghats converge into the complex, in the western part of the Deccan Peninsular region of India. Target project sites in Karnataka include Kodagu (Coorg) and Bagalkot districts.

Note: Site specific maps along with their respective geospatial coordinates of the project area are presented in **Annex III**. Also detailed profiles of target landscapes/districts are presented in **Annex XII (a)** - GEF Land Degradation Focal Area-Specific Annexes.

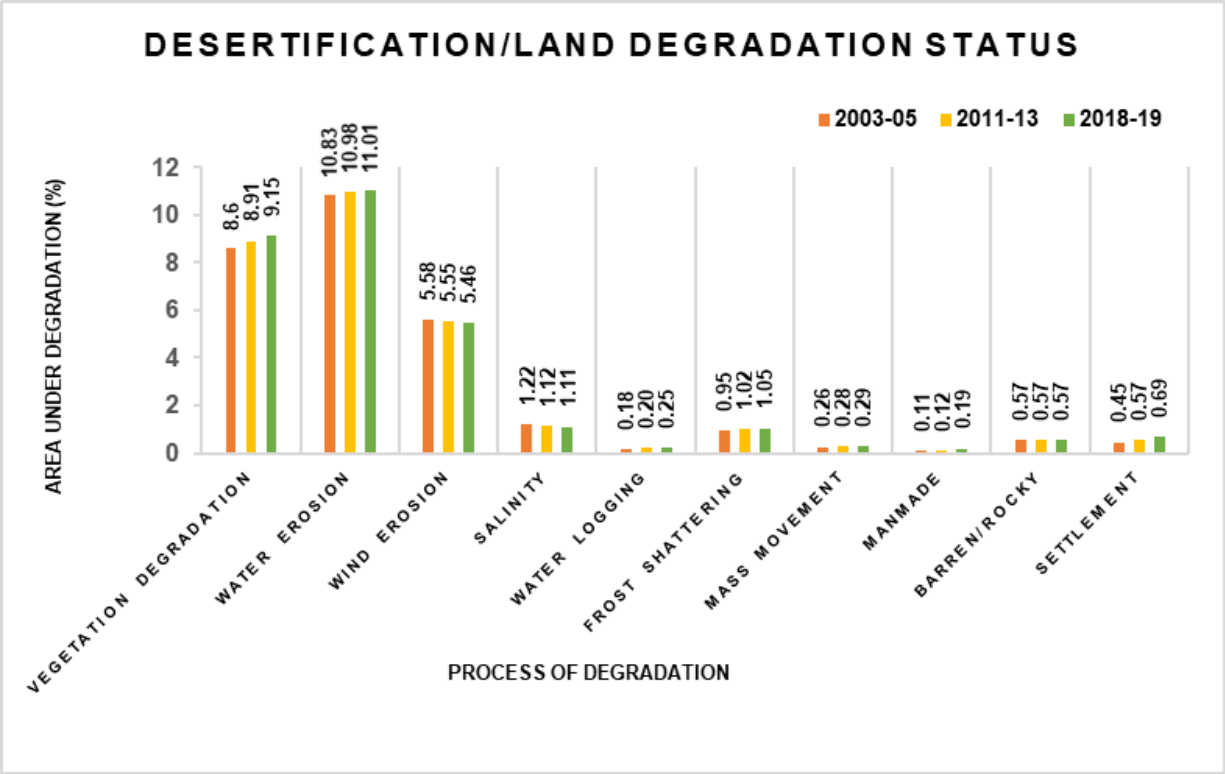
1) **Kodagu:** Kodagu, known for its coffee plantations in India, is located in the southwestern part of Karnataka state between North latitude 11° 56' and 11° 52' and East longitude 75° 22' and 76° 12', it falls in the high precipitation zone with picturesque topography occupying the eastern and western slopes of the Western Ghats. There are three *Talukas* (Madikeri, Samvarpet and Virarajendrapet) and the project intervention will confine to Madikeri Taluka.

2) **Bagalkot:** Bagalkot district, situated entirely on the North Karnataka Plateau, is bound by Bijapur in the north, Belgaum in the west, Dharwar in the south and Raichur in the east. It lies between 15° 49' and 16° 46' north latitude and 74° 58' and 76° 20' east longitude and covers an area of 6593 km^2. The project implementation will be across two of its Talukas (Badami and Hunagund).

Threats and root causes:

- As per the most recent Desertification and Land Degradation Atlas of India, the most significant processes of desertification/ land degradation in the country are water erosion (11.01% in 2018-19, 10.98% in 2011-13 and 10.83% in 2003- 05), followed by vegetation degradation (9.15% in 2018-19, 8.91% in 2011-13 and 8.60% in 2003-05), and wind erosion (5.46% in 2018-19, 5.55 % in 2011-13 and 5.58 % in 2003-05). See Figure 4.
- An estimated 60% of cultivated land suffers from soil erosion, water logging, and salinity. It is also estimated that between 4.7 and 12 billion tons of topsoil are lost annually from soil erosion. From 1947 to 2002, average annual per capita water availability declined by almost 70% to 1,822 cubic meters, and overexploitation of groundwater is problematic in many states of India. Forest cover and its quality is declining because of harvesting for fuel wood, excessive harvesting of non-timber forest products, and the expansion of agricultural land. These trends, combined with increasing industrial and motor vehicle pollution output, have led to atmospheric temperature increases, shifting precipitation patterns, and declining intervals of drought recurrence in many areas.
- The underlying causes of desertification and land degradation are numerous and complex. Proximate factors include the extension of crop cultivation to marginal and low potential lands or to lands vulnerable to natural hazards, improper crop rotations, overuse of agrochemicals, and mismanagement of the irrigation system. Overgrazing by herds far larger than what the land can sustain, year after year, has progressively rendered them marginal or waste lands, due to erosion of top soil and changing plant association, making them unsuitable for bovines and fit only for sheep and goats. Shifting cultivation practiced in many parts of the country is responsible for deforestation and the expansion of agriculture to less productive lands. Depletion of groundwater resources is also a critical issue due to increasing demand and over-extraction that is exacerbated by increasing climatic variability and inadequate rainfall.

Figure 4. Process wise changes in land degradation status from 2003-05 to 2018-19



Source: Desertification and Land Degradation Atlas of India (Space Application Centre, ISRO, 2021)

- Climate change and population growth have emerged as the major drivers of large-scale land degradation, posing great threats to food and economic security in the country. Heavy dependence of dryland communities on slow growing xerophytic vegetation in arid and semi-arid areas has rendered many areas devoid of vegetation, triggering the threat of shifting sand dunes. Furthermore, land degradation is upsetting traditional land management practices with forced migrations resulting in conflicts between nomadic and sedentary populations competing for limited water and grazing land. Root causes include poverty among agricultural households, land fragmentation, insecure land tenure, open access nature of some resources, rising populations and land use shifts including urbanization and rise in industries, and policy and institutional failures. Status of agricultural land is tracked by the National Bureau of Soil Survey and Land Use Planning (NBSSLUP) under ICAR (Box 3).

Box 3. Status of agricultural land is tracked by the National Bureau of Soil Survey and Land Use Planning (NBSSLUP) under ICAR. It undertakes survey and identification of factors of land degradation with the objective of supporting strategies to find appropriate solutions for them. Its comparative survey of changes in various factors and status of land degradation over 2008-09 to 2010-11 reveals that: (i) total degraded area has declined by 18 % over the period from 1,468 to 1,204 lakh ha; and (ii) degradation due to soil acidity, salinity/ alkalinity and water erosion has increased by 12, 8 and 1% respectively.

- MOEFCC submitted four progress reports (2000, 2002, 2006 and 2010) by 2012 and the latest report in August 2018 to the UNCCD to review progress on the objectives of the strategic framework. These reports state the progress towards each strategic objective (SO) through different indicators. Trends in land cover show an increase in tree cover area by 3,324.59 km^2, decrease in grassland area by 56,520.21 km2 and increase in cropland area by 2.09 lakh km^2 in the period from 2005 to 2015. While 19,746.09 km^2 land has been converted from tree cover to cropland, 47,483.08 km^2 land has been converted from grassland to cropland, 1.24 lakh km^2 land has been diverted from cropland to other land uses. With regard to carbon stocks in the country, which are an indicator for measuring performance for SO1 and SO4, stocks have decreased in some areas due to land use change from tree-covered areas to crop land and other land uses, while it has also increased in some cases when land use change has converted

cropland into tree covered area and other lands into cropland. The red list of select species survival has seen a worsening trend due to deforestation, industrial activities, urbanization and land tenure.

- Reports from different states of the country only show a worsening trend in degradation processes. For example, timber extraction in Maharashtra has led to rampant soil erosion, soil erosion triggered by mining has led to aggravated water scarcity in Jharkhand with alarming reduction in ground water levels, desertification is creeping into Nagaland due to shifting cultivation, deforestation and rising populations, low rainfall and increased dependence on bore wells has led to soil aridity in many places in Andhra Pradesh. Land degradation pressures observed in the project landscapes are described further below:

- ***Water resource related issues:*** Water scarcity in India is becoming commonplace every year and spreading to more and more urban and rural areas. Underground water resources in the country are shrinking due to heavy exploitation of aquifers without any natural recharge. It is ironical that in India both floods and droughts occur regularly and alternately. On an average, 35% of the land is drought-prone and receives rainfall of less than 750 mm, another 18.5% of the land receiving 750-1000 mm falls in the transitional zone, whereas, the remaining 46.5% receiving rainfall of over 1000 mm falls under the humid zone. During the 2019 monsoon/rainy season more than 50% of the country was affected by drought, including all three target districts. The impact of drought leads to shortage of fodder, shortage of drinking water, loss in agricultural production, and a general decline in living standards, across all target districts. On the other hand, irrigated areas are increasingly plagued with water logging, salinity and sodicity, including target districts (Banaskantha, Aurangabad and Bagalkot), reducing the productive capacity of soils and consequently leading to loss of soil fertility, crop yields, and agro-biodiversity. Therefore, continued interference and relentless pressures on utilisation of water resources are disturbing ecosystem balances.

- ***Overgrazing:*** On one hand, India has one of the largest numbers of cattle population (over 197 million cattle), while on the other the grazing practices in India are not sustainable. In many parts of semi-arid systems, livestock is the mainstay of livelihoods for survival, and common grazing lands are used to support fodder requirements of the livestock population. Over time, common grazing lands are degraded and grasses grown are neither palatable nor sufficient to feed the livestock population. Therefore, livestock overgrazing, as observed in Banni and Nandurbar grassland (target project sites) is yet another factor causing degradation of the existing common property resources (CPRs). The existing CPRs, which include natural grazing lands, have very poor green cover to feed the livestock. Heavy grazing intensity reduces vigour of grazed plants, distorts the plant growth pattern and changes the biodiversity composition of the grazing land. All these has led to serious problems as animals have encroached into forest lands and even agricultural lands. Due to lack of green fodder, animals are pushed to the fringes of reserve forests (Nandurbar) and are thus destabilising the forest vegetation. Land degradation due to overgrazing, especially Banni grassland, leads to desert - like conditions which, in turn, reduce animal productivity and increase the economic pressure on human beings who depend on animals for their livelihood.

- ***Deforestation: India loses 1.3 million hectares of forests per year. One of the major causes of desertification is the cutting*** down of trees and excessive harvesting of the forest products, as observed in Nandurbar. According to the National Remote Sensing Agency (NRSA), India had less than 11.4% of area under forest as per the 1992 observation. But the more recent satellite pictures show that the forest cover is now less than 10%. This is also happening across 2 districts (Nandurbar, Coorg) of the target project sites.

- ***Vegetation degradation:*** Vegetation degradation is happening in India, including target districts (Banaskantha, Aurangabad and Bagalkot) at a faster rate, which is mainly due to change in cropping pattern, poor agricultural practices such as improper crop rotations; overuse of agrochemicals and water resources, soil erosion caused by surface runoff and removal of topsoil.

Baseline scenario:

- Realizing these threats, successive Indian governments have been in the forefront to announce policies and set target to regenerate degraded land resources. India has had a long journey in addressing degraded lands and has also recorded some remarkable success. The pro-activeness of the government is evident from its active participation in international conventions related to environment and climate change such as National Determined Contributions (NDCs), UNCCD and UN Convention on Biological Diversity, and has set national targets for landscape restoration and sustainable land management. India has committed to achieve Land Degradation Neutrality by 2030,

which indicates that no more land would be degraded as compared to the degraded land of baseline year (2003-2005), that is 94.53 mha. At the 2019 Conference of Parties for the UN Convention on Combating Desertification (UNCCD), India's Prime Minister announced an increase in the country's ambition for land restoration from 21 million ha to 26 million ha between now and 2030.

- Among the other international commitments most relevant to the present project are the following: i) the Nationally Determined Contribution (NDC) under the UN Framework Convention on Climate Change (UNFCCC) Paris Agreement to sequester 2.5 to 3 billion tons CO2eq by 2030 through improved forest and tree cover; ii) Bonn Challenge to restore 21 mha of degraded and deforested lands and achieve land degradation neutrality, and; iii) the Sustainable Development Goals (SDGs) – particularly no poverty (SDG 1), zero hunger (2), good health and well-being (3), decent work and economic growth (8), climate action (13), and life on land (15). India's international commitments that have a bearing on land restoration are described below:

- ***United Nations Convention to Combat Desertification (UNCCD)*****:** India is committed to the strategic framework to combat desertification, which was adopted at the COP13 of UNCCD, to guide the actions of the stakeholders and partners. The framework includes five objectives and indicators under each objective that Parties must strive to improve within the period of 2018-2030 and are as follow: (i) Improving the condition of affected ecosystems, combating desertification/land degradation, promoting sustainable land management and contributing towards land degradation neutrality; (ii) Improving the living conditions of the affected populations; (iii) Mitigation, adaptation and management of the effects of drought; (iv) Generating global environmental benefits through effective implementation of the UNCCD; and (v) Mobilizing substantial and additional financial and non-financial resources to support the implementation of the Convention by building effective partnerships at global and national level. Following this, India host COP 14 which was held in New Delhi in 2019, and the 'Delhi Declaration' was adopted by parties, which renewed commitment to objectives already set at the COP13. It further commits to achieve objectives with programs that include the participation of local communities and are gender inclusive, include drought preparedness and risk mitigation in case of droughts and dust storms, invite more investments from different stakeholders including the private sector and encourage the creation green jobs, encourage the peace forest initiative amongst others within the time period from 2018-2030. India's National Action Program (NAP) was prepared in 2001 for a 20-year period, and included comprehensive measures to achieve the UNCCD objectives.

- In addition, at UNCCD COP 14, the Prime Minister announced India's intention to set up a global technical support institute for member countries of the UNCCD for capacity building and support in order to help countries achieve the goal of Land Degradation Neutrality (LDN), to further develop a scientific approach and to facilitate the use of technology to address land degradation issues. The main role of the Center would be to share knowledge and technology among developing country Parties of UNCCD to arrest further land degradation and restoration of degraded lands aiming at conserving biodiversity, food and water security, support livelihoods along with maintaining the flow of ecosystem goods and services for posterity. It will facilitate networking of national and international institutions working on sustainable land and ecosystem management for knowledge sharing, capacity building of the stakeholders in LDN target setting and provide technical support for land degradation mapping. It will also be engaged in developing planning and M&E systems for interventions to combat land degradation. The Centre will network all the national and international institutions working in the domain and draw together their expertise. The Centre shall also provide all the technical support to the MoEFCC in achieving LDN targets.

- Institutional structure in India at the local level now includes several programs and schemes for combating desertification as well as social sector schemes for community development for women and child development, health, literacy as well provision of basic needs such as drinking water and sanitation. Several income generating schemes, micro credit and credit assistance activities for eradicating poverty are also part of the plan. Capacity building and strengthening the roles of various stakeholders in the degraded regions of the country is also now included in the plan. Overall, the NAP strived to operate through active participation of NGO's and local communities in dry lands. National land use boards such as the National Land Use and Conservation Board (NLCB), National Wastelands Development Board, National Afforestation and Eco-Development Board were set up. The 2018 report submitted to the UNCCD states that in 2014-15, after the COP13, the objectives of the strategic framework were aligned within the existing objectives of the NAP 2001.

- COP 13 of the UNCCD also acknowledged the importance of land tenure towards achieving Land Degradation Neutrality (LDN) and endorsed the inclusion of Land Tenure as a new and emerging issue in COP 14. The Science Policy Interface, which provides a scientific basis for understanding the key dimensions of an enabling environment for LDN planning concludes that land tenure security and land-use planning conditions are key for creating an enabling policy and regulatory environment, and there is a clear need to build national capacity for securing land tenure arrangements.

Box 4. Article 48 of the Constitution of India mandates that "the State shall endeavour to protect and improve the environment and to safeguard the forests and the wildlife of the country." Article 51 A (g) makes it a "duty of every citizen to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures."

- The UNCCD 2018 report submitted by MOEFCC reported the number of projects that have been undertaken and completed with regard to the objectives of UNCCD. A grant of USD 516 million was given to 84 projects that cover 21 states. Out of these 37 have been completed and 33 are under implementation. Though, there has been an increase in the domestic budget allocation, private sources have not contributed towards any developments.

- In 2017, ahead of the World Day to Combat Desertification, the MOEFCC updated the progress of India towards combating desertification, land degradation and drought (DLDD) and announced that India was working on a new NAP to achieve LDN by 2030. Some of the main programs and schemes mentioned include the Soil Health Card Scheme, which was launched to help increase productivity of farmers and encourage judicious use on inputs. The Scheme was allotted Rs. 840.52 Crore[4] over a period of three years, which was 30 times more than any funding allotted to soil research and analysis in previous years. Some other major schemes included the '*Rashtriya Krishi Vikas Yojana*' which has been allotted Rs. 4750 crores in 2016-17, as compared to the Rs. 3707 crores in the preceding year. The '*Pradhan Mantri Krishi Sinchayee Yojana*' was also allotted 22 % more funds than the preceding year. Allocation under the National Rural Livelihoods Mission (NRLM) also increased by 33 per cent.

- ***India's Nationally Determined Contribution to Climate Change Mitigation and Adaptation*****:** India being a responsible signatory and member of COP 21 ratified the convention and converted INDCs into Nationally Determined Contributions (NDCs). India's NDCs communicated to UNFCCC include to: (i) put forward and further propagate a healthy and sustainable way of living based on traditions and values of conservation and moderation; (ii) adopt a climate friendly and a cleaner path than the one followed hitherto by others at corresponding level of economic development; (iii) reduce the emissions intensity of its GDP by 33 to 35 % by 2030 from 2005 level; (iv) achieve about 40 % cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030 with the help of transfer of technology and low cost international finance including from Green Climate Fund (GCF); (v) create an additional carbon sink of 2.5 to 3 billion tons of CO2 equivalent through additional forest and tree cover by 2030; (vi) better adapt to climate change by enhancing investments in development programs in sectors vulnerable to climate change, particularly agriculture, water resources, Himalayan region, coastal regions, health and disaster management; (vii) mobilize domestic and new and additional funds from developed countries to implement the above mitigation and adaptation actions in view of the resource required and the resource gap; and (viii) build capacities, create domestic framework and international architecture for quick diffusion of cutting-edge climate technology in India and for joint collaborative R&D for such future technologies.

- India has submitted to UNFCCC that to achieve its goal in limiting increase of average global temperature, it will launch new initiatives along with continuation of its on-going interventions. New interventions committed by the country range from promoting clean technology in thermal power generation, promoting renewable energy, reducing emission from transportation, promotion of energy efficiency, reducing emission from waste and developing climate resilient infrastructure. It can be assumed that India's NDC to create an additional carbon sink through additional forest and tree cover by 2030 is cumulative. The Government of India is convinced that the Green India Mission could achieve half of this target. However, the Parliamentary Standing Committee for the Environment, Forest and Climate Change found that the Green India Mission is grossly underfunded. The budget allocation for the mission has sharply declined from Rs. 89.53 core in 2015-16 to just Rs. 47.8 crore in 2017-18.

[4] 1 crore denotes 10 million that is 840.52 crore is equivalent to Rupees 8,405,200,000 (Rupees 8.405 billion).

- It is estimated that India's financial requirement for adaptation actions in agriculture, forestry, fisheries, water resources and ecosystems will be around USD 206 billion between 2015 and 2030. However, India's adaptation efforts are being scuttled due to the paucity of financial resources and knowledge about adaptation requirements as well as the lack of coordination between various governmental agencies (including the lack of clarity on the role of states in implementing NDCs).

- ***India's Commitments under CBD*:** India provided its 6th national report to the CBD in 2018 to provide an update on its progress towards the national biodiversity targets (NBT). The 20 Aichi targets have been enshrined within the 12 NBT's in India. The Constitution of India embeds the fundamental support in the form of laws and policies for the realization of these targets. The State and the people of India are bound to comply with these and conserve the rich biodiversity of the country at the national, state and local level. While various policies and laws existed, many new ones have evolved to address the various aspects that the NBSAP serves. The following policy and legislative framework in India supports achievement of its biodiversity target: (i) National Forest Policy 1998, (ii) National Environment Policy 2006, (iii) National Agroforestry Policy 2014, (iv) The National Policy on Marine Fisheries 2017, (v) The Biodiversity Act 2002, (vi) Indian Forest Act 1927 (Last amended 2017), (vii) Wildlife Protection Act 1972 (Last amended 2002), (viii) Forest Conservation Act 1980, (viii) Environment Protection Act 1986, (ix) Wetland (Conservation and Management) Rules 2017, (x) The Plant Quarantine (Regulation of Import into India) Order, 2003 (PQO, 2003), (xi) The Protection of Plant Varieties and Farmers' Rights Act, 2001 (PPVFR Act, 2001), (xii) The National Green Tribunal Act, 2010 (NGT Act, 2010), and (xiii) The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (Forest Rights Act, 2006).

  Box 5. The Environment (Protection) Act (EP Act) enacted in 1986 paved the way for legal interventions for protection of ecosystems including coastal, riverine and wetlands ecosystems. The Wildlife (Protection) Act, 1972, (WP Act), the Forest (Conservation) Act, 1980 (FC Act), the BD Act and the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (referred to as Forest Rights Act, 2006 hereafter) further strengthen the legal base for conservation and sustainable utilization of biological diversity.

- The 6th national report to the CBD shows that out of 12, measures for 10 targets have been effective and significant progress was made. The 4th target on controlling alien species and measures, and the 12th target on assessment of financial and technical resources have been partially effective. Whereas NBT 6 and 9 -- conservation of areas important for species and ecosystem services with effectiveness and ensuring access and benefit sharing measures -- have exceeded expectations and significant improvements have been noted.

- The MoEFCC in 2019 published a report on Implementation of India's National Biodiversity Action Plan and noted that climate change, pollution and invasive alien species (Box 6) have posed major challenges and need to be incorporated into the existing frameworks as well be seen as important themes around which newer action plans be designed. Realignment of existing resources and identification of new resources is a requirement for better implementation of targets where achievements have been less than satisfactory especially with regards to human and technical resources, as also found in a BIOFIN review study. The report emphasizes the need for more studies and communication material for better implementation especially for NBT 6. Best practices from across the globe should be incorporated for realization of targets.

Box 6. Floral alien species across target sites:

- *Prosopis juliflora* – recoded one of the major causes of degradation in Banni grassland (causes degradation to the native flora, depletes soil nutrition, lowering the species richness of the area and impacts native plant growth).
- *Lantana camara* - recoded across forest landscapes in Kodagu suppressing the growth of native species and threatens natural habitats.
- *Parthenium hysterophorus* - has emerged as one of the devastating weeds, responsible for severe human and animal health, agricultural losses, and loss of biodiversity.

- ***Other key domestic targets:*** Key domestic targets include doubling of farmer income by 2022, and successful implementation of national mission on sustainable agriculture, sub-mission on agroforestry, Green India Mission, and the national clean air programme. Achieving these international commitments and national targets requires avoiding and reducing land degradation, while identifying land restoration opportunities, planning for restoration with multiple ecosystem services and monitoring results/ outcomes.

- ***Participation through research and business networks:*** It also participates in global scientific research through CGIAR Research Centres, such as Alliance of Bioversity International and CIAT, International Crops Research Institute for the Semi-Arid Tropics, International Rice Research Institute, International Maize and Wheat Improvement Center, International Center for Agriculture Research in the Dry Areas, World Agroforestry, and International Water Management Institute. Indian institutions are members of the Global Agribusiness Alliance, and the Global Alliance for Climate Smart Agriculture. Private companies like Godrej, Tata Group, ITC, Jain Irrigation and Vedanta are involved in the World Business Council for Sustainable Development, which is a part of the Food and Land Use Coalition. India has several emerging national platforms related to food and sustainable agriculture. It is an active Board member of the International Federation of Organic Agriculture Movement and hosted the Organic World Congress 2018. The resolution sponsored by India and supported by 70 nations to declare 2023 as the International Year of Millets[5] was adopted by the UN General Assembly. India's diplomatic work includes the India-Africa Cooperation in Agricultural Sector for Food Security.

Institutional baseline at the national, state and local government level:

- At the national level, the Ministry of Environment, Forest and Climate Change (MoEFCC) is the nodal ministry for implementation of the UNCCD, UNCBD and UNFCCC. It is also responsible for the alignment of the National Action Plan (NAP) with the 20-Year Strategic Plan and indicator-based UNCCD reporting process, the Plan for Combating Desertification as well as the National Biodiversity Strategy and Action Plan for India. It has the overall responsibility for coordinating efforts related to natural resources and environmental management. The Desertification Cell of the Ministry undertakes activities to help strengthen inter-ministerial coordination, build scientific and technical capacity, and facilitate knowledge sharing by bringing diverse stakeholder groups together that will lay the foundation for undertaking activities for combating desertification and mitigating the effects of droughts.

- Many of the present schemes and programmes of the Ministry of Environment, Forest and Climate Change, as well as those of the Ministry of Rural Development, Department of Land Resources, Ministry of Agriculture and Farmers Welfare, Ministry of Water Resources, Ministry of Tribal Affairs, Ministry of Panchayati Raj, Department of Science and Technology, Department of Space have significant bearing for addressing desertification, land degradation and drought (DLDD) challenges.

- India's Constitution (74th Amendment), gives responsibilities for spatial planning to state governments. Further, state and district authorities are empowered to decide on the composition of local development plans and resource allocations to different elements of the plan. This provides a tremendous opportunity to directly engage with planning and financing agencies at the state level to mainstream SLM into local plans and programmes. The state forestry departments are responsible for sustainable management of forest resources, regulating the commercial harvest of trees, afforestation and reforestation programmes, regulating the use of rangelands and overseeing the extraction of non-timber forest products. Similarly, state agriculture departments provide agriculture extension services (including research), while state livestock departments provide advice for raising livestock, veterinary services, and control disease outbreak. The state irrigation departments are charged with managing the network of irrigation head-works, canals, small dams and other irrigation works in the country.

[5] Millets are considered a climate smart nutri-cereal.

Policy and legislative baseline:

- Though India does not have a specific policy or legislative framework for combating desertification as such, the concern for arresting and reversing land degradation and desertification gets reflected in many of the national policies and laws that have enabling provisions for addressing DLDD problems. It is also implicit in the goals of sustainable forest management (SFM), sustainable agriculture, sustainable land management and the overarching goal of sustainable development which the country has been pursuing. The subject has in fact been engaging the attention of planners and policy makers since the inception of planning. The first five-year plan (1951-1956) had 'land rehabilitation' as one of the thrust areas. In the subsequent plans too, high priority has been consistently attached to development of the drylands.
- India has demonstrated strong commitment to achieving sustainable food systems and effective environmental management. The "National Strategy for New India" (NITI Aayog, 2018) prioritizes 'Doubling farmers' income' through sustainable agriculture and livelihood diversification; maintaining ecosystems and resilience to climate change and disasters. NITI Aayog also developed guidelines on "Management of Natural Resources and Rainfed Farming" and "Revitalising Rainfed Agriculture in India", which are useful information in developing the project result framework. It is also coherent with the Ministry of Agriculture and Farmers' Welfare's "Specific Strategies for Sustainability in Agriculture". Other relevant enablers in India are the National Water Policy 2012; National Forest Policy 1988; National Agricultural Policy 2000; Forest (Conservation) Act 1980; Environment (Protection) Act 1986; National Environmental Policy 2006; National Policy for Farmers 2007; National Rainfed Area Authority (NRAA) 2007; National Mission for Sustainable Agriculture (2014); national policies on Agroforestry (2014); Seed (2002), Horticulture (2014); Food Security (2013); and Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act (2006) that allows for forest land use plans; and National Wildlife Action Plan and Integrated Watershed Management Plan.
- The Green Revolution has enabled great strides in domestic food security, but the government's focus is now on innovative models that tackle social and environmental externalities and prioritize safe and sustainable diets, which presents a strategic opportunity for the proposed project to capitalize on. State organic farming policies and agroecology innovations such as Zero Budget Natural Farming illustrate increasing sub-national support for sustainable food systems. Public-private partnerships are emerging to promote sustainable food systems for the promotion of traditional varieties/breeds of flagship crops/livestock and organic products.

Baseline projects

- In the business-as-usual scenario, with no GEF investment, there are several ongoing and planned national initiatives/missions that contribute to combating land degradation and restore different landscapes; close coordination with these baseline initiatives will be critical to successful implementation of the project. These are presented below:

Sl. No.	PROJECT SCHEME	MINISTRY	DESCRIPTION
Watershed development programmes and schemes			
1	Soil and Water Conservation under DPAP and DDP	Ministry of Rural Development (MORD)	The Drought Prone Area Development (DPAP) programme was one of the first development programmes launched to address the problems of a specific area such as drylands. The main objective was to curtail the impacts of drought on cultivation, livestock, water, land and human resources. The drought proofing programme also sought to enhance the socio-economic conditions of the vulnerable people who lived amongst precarious conditions. The DDP sought to restore ecological balance in areas where desertification had set in, and droughts were severe. This was to be done by rejuvenation of natural resources and making the local poor populations more resilient and capable of improving their socio-economic status. A total of 13,476 projects

			were sanctioned, with a total budget allocation of Rs. 3817.68 crores
2	The National Wasteland Development Board	Ministry of Forest, Environment and Climate Change (MoEFCC)	The National Wastelands Development Board (NWDB) was set up under the Ministry of Forest, Environment and Climate Change (MoEFCC) in 1985 in order to address land degradation, restoration of ecology and meet the increasing demand of fuelwood and fodder at the national level. The target of this mission was to restore 5 m ha of wastelands annually by planting trees. However, the board could not translate its vision into action. The reason for this was mostly the conflict between the MoEFCC and NWDB on land related issues for implementing various schemes.
3	National Watershed Development Program	Ministry of Agriculture and Farmers' Welfare	The National Watershed Development Program (NWDP) for rainfed areas was launched in 1990-91 under the Ministry of Agriculture and Farmers' Welfare. The twin formula of integrated watershed management and sustainable farming systems formed the basis for it. The scheme was set up to address conservation, development and sustainable management of natural resources. Increasing agriculture production in a sustainable manner was also part of the scheme as well as greening and restoring the ecological balance in degraded rainfed eco-systems. In November 2000, Common Approach for Watershed Development and New Operational Guidelines for National Watershed Development Project for Rainfed Areas (NWDPRA) were operationalised.
4	Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)	Jal Shakti Mantrayala, Ministry of Rural Development, Ministry of Agriculture	The Government of India has been implementing centrally sponsored scheme on micro-irrigation (CCS) with the objective to enhance water use efficiency in the agriculture sector by promoting appropriate technological interventions like drip and sprinkler irrigation technologies and encourage the farmers to use water saving and conservation technologies (Box 8). The Scheme was launched by the Ministry of Agriculture and Farmers Welfare in January 2006. Budget provision of 4000 crore is provided in the financial outlay for 2020-21
5	National Water Mission (NWM)	Department of Water resource, RD and GR	Government of India has established the "National Water Mission (NWM)", as one of the eight National Missions under the National Action Plan on Climate Change (NAPCC). The main objective of NWM is "conservation of water, minimizing wastage and ensuring its more equitable distribution both across and within States through integrated water resources development and management".
6	Jal Shakti Abhiyan: Catch the Rain	Ministry of Jal Shakti	One of the National Water Mission's (NWM) campaign "Catch the Rain" with the tagline "Catch the rain, where it falls, when it falls" was launched by The Prime Minister of India on 22 March 2022 to nudge the states and stakeholders to create appropriate Rainwater Harvesting Structures (RWHS) suitable to the climatic conditions and sub-soil strata with the active participation of people.
Forestry programmes and schemes			
7	Social Forestry and Joint Forest Management Programs	Ministry Of Environment	The Joint Forest Management (JFM) program came into implementation in 1990. State forest departments and local communities were to take part in management of degraded or

		Forest and Climate Change	deforested forests together. While all income for non-wooded forest produce was to go to the locals, their share in the sale of timber was 25%, while the rest would go to the forest department. Village level committees were formed for this joint management. Further, each state had its own guidelines according to which JFM was to be implemented. In several states, almost 3/4th of the forest cover was under JFM in states like Jharkhand (72.94%), Bihar (71.42%) and Madhya Pradesh (70.62%)
8	National Mission for a Green India or 'Green India Mission'	Ministry Of Environment Forest and Climate Change	The Green India Mission (GIM) is one the eight missions outlined under the National Action Plan on Climate Change (NAPCC). It aims at "protecting, restoring and enhancing India's diminishing forest cover (Box 10) and responding to climate change" by increasing green cover across India by five million hectares (mha) and improve the quality of existing green cover on another five mha, while improving ecosystem services like carbon sequestration, hydrological services and biodiversity and provisioning services like fuel, fodder, and timber and non- timber forest produces (NTFPs). The mission is also charged with increasing forest-based livelihood incomes for about three million households. The budgetary allocation for National Mission for Green India has been raised from Rs 210 crores in financial year (F.Y.) 2018-19 to Rs 290 crore in F.Y. 2019-20 and to Rs 361.69 crore this year (2022-23) with the national afforestation programme alone being allotted Rs 300 crore, more than last year's amount of Rs 235 crore.
9	Compensatory Afforestation Fund Management and Planning Authority (CAMPA)	Ministry Of Environment Forest and Climate Change	The CAMPA authority created in 2001 by the Supreme Court to manage fund collected towards compensatory afforestation. For last two decades, the collected CAMPA fund remains largely un-utilized and, in some case, it was diverted for other purposes. In a major boost towards promoting afforestation and achieving green objectives of the country. The government of India released Rs. 47,436 crores of CAMPA fund in August 2019 to 27 different States and UTs Rs. 47,436 crores.
10	National Mission on Strategic Knowledge for Climate Change (NMSKCC)	Ministry of Science and Technology	National Mission on Strategic Knowledge for Climate Change (NMSKCC)' is one of the 8 sub-missions under the National Action Plan on Climate Change (NAPCC), being operated by Department of Science and Technology, Ministry of Science and Technology.
Agriculture programmes and schemes			
11	National Food Security Mission	Ministry of Agriculture	The National Development Council (NDC) in its 53rd meeting held on 29th May 2007 adopted a resolution to launch a Food Security Mission comprising rice, wheat and pulses to increase the annual production of rice by 10 million tonnes, wheat by 8 million tonnes and pulses by 2 million tonnes by the end of the Eleventh Plan (2011-12). Accordingly, a Centrally Sponsored Scheme, 'National Food Security Mission' (NFSM), was launched in October 2007. The Mission met with an overwhelming success and achieved the targeted additional production of rice, wheat and pulses. The total budget allocation for this mission during 2021-22 was 599.02 crore
12	National Mission for Sustainable Agriculture	Ministry of Agriculture, &	Sub-Mission on Agroforestry has been launched in 2016-17 to encourage tree plantation on farmland "Har Medh Par Ped", along with crops/ cropping system. The scheme is being implemented in

	(NMSA) – Sub-mission on Agro Forestry Active year 2016-17	Farmers Welfare,	the states which have liberalized transit regulations for selected tree species. The implementation of the sub-mission will result in providing additional income opportunities for farmers, increase in tree cover that will lead to higher carbon sequestration and complement the national initiatives on climate change adaptation and mitigation and trees grown on farmland will help in enriching soil organic matter. A total budget of Rs. 3.3 crore was allocated during 2020-21, whereas the budget allocated during 2021-22 is only Rs. 1.12 crore.
13	National Mission for Sustainable Agriculture (NMSA) - National Bamboo Mission:	Ministry of Agriculture, & Farmers Welfare,	The National Bamboo Mission (NBM), mainly focused on boosting of domestic cultivation of quality and appropriate species for providing adequate supply to Indian industry, was launched as a Centrally Sponsored Scheme in 2006-07 and was subsumed under Mission for Integrated Development of Horticulture (MIDH) during 2014-15 and continued till 2015-16. Though NBM contributed significantly towards enhancing bamboo areas both in forest and non-forest areas, the main weakness of the scheme had been the absence of a linkage between the producers (farmers) and the industry and a strong value addition component. Hence the emphasis now will be on propagation of quality plantations of bamboo of the required species, product development and value addition including primary processing and treatment; micro, small and medium enterprises as well as high value products; markets, and skill development, thus ensuring a complete value chain for growth of the bamboo sector to boost bamboo-based industry which would also have a ripple effect on rural economy. A total of 64.66 crore was allocated for this mission during 2021-22, which include budget for Gujarat (Rs. 2.0 crore), Karnataka (Rs. 4.0 crore), and Maharashtra (Rs. 4.0 crore).
14	National Mission for Sustainable Agriculture (NMSA) Sub-mission on Rainfed Area Development	Ministry of Agriculture, & Farmers Welfare,	Rainfed Area Development (RAD) adopted an area-based approach for development and conservation of natural resources along with farming systems. This programme focuses on integrated farming system in which crops/cropping system is integrated with activities like horticulture, livestock, fishery, agro-forestry, apiculture, etc. to enable farmers to not only maximize farm returns for sustaining livelihood, but also to mitigate the impacts of climate change. The total budget allocated during 2021-22 is Rs. 17.5 crore, which includes budget for Gujarat (Rs. 2.40 crore), Karnataka (Rs. 1.20 crore) and Maharashtra (Rs. 0.73 crore)
15	National Mission for Sustainable Agriculture (NMSA) - Sub-mission on Soil Health Management	Ministry of Agriculture, & Farmers Welfare,	Soil Health Management (SHM) mission is aiming to promote location as well as crop specific sustainable soil health management including residue management, organic farming practices by way of creating and linking soil fertility maps with macro-micronutrient management, appropriate land use based on land capability, judicious application of fertilizers and minimizing the soil erosion/degradation. This mission also provide support to reclamation of problem soils (acid/alkaline/saline). Soil Health cards (SHCs), issued under this mission, describe the status of soils with respect to 12 parameters, and will provide crop-specific fertilizer recommendations and will help farmers improve productivity by maintaining soil health.

16	National Mission for Sustainable Agriculture (NMSA) - Climate Change and Sustainable Agriculture	Ministry of Agriculture, & Farmers Welfare,	This sub-mission under NMSA is supporting creation and bidirectional (land/farmers to research/scientific establishments and vice versa) dissemination of climate change related information and knowledge by way of piloting climate change adaptation/mitigation research/model projects in the domain of climate smart sustainable management practices and integrated farming system suitable to local agro-climatic conditions.
17	National Horticulture Mission (NHM)	Ministry of Agriculture	National Horticulture Mission (NHM) is one of the sub schemes of Mission for Integrated Development of Horticulture (MIDH) which is being implemented by State Horticulture Missions (SHM) in selected districts of 18 States and 6 Union Territories. In case of National Horticulture Board (NHB), Coconut Development Board (CDB), Central Institute for Horticulture (CIH), Nagaland and the National Level Agencies (NLA), GOI contributes 100%. The total financial outlay for this mission for 2020 -21 is Rs. 2310.25 crore.
18	National Livestock Mission (NLM):	Ministry of Agriculture, & Farmers Welfare,	The NLM supports activities required to ensure quantitative and qualitative improvement in livestock production systems and capacity building of all stakeholders. The Mission objective is the sustainable development of the livestock sector in the country. The “Sub-Mission on Fodder and Feed Development” will address the problems of scarcity of animal feed resources, to give a push to the livestock sector making it a competitive enterprise for India, and also to harness its export potential.
19	National Programme for Dairy Development	Department Of Animal Husbandry and Dairying	scheme since 2014-15, with the objective to create and strengthen dairy infrastructure for procurement, processing and marketing of milk and milk products by the State Implementing Agencies (SIAs), mainly focusing on two activities namely: (a) Village based milk procurement system and (b) Milk Quality Testing Facilities at Village/District/State Level.
20	Rashtriya Gokul Mission (RGM)	Department Of Animal Husbandry and Dairying	been launched in December 2014 with an outlay of Rs 2025 crore for development and conservation of indigenous breeds through selective breeding in the breeding tract and genetic upgradation of nondescript bovine population. The scheme comprises of two components namely ‘National Programme for Bovine Breeding (NPBB)’ and ‘National Mission on Bovine Productivity (NMBP). An outlay of Rs 2025 crore for development and conservation of indigenous breeds through selective breeding in the breeding tract and genetic upgradation of nondescript bovine population. Rs 2025 crore
21	Supporting Dairy Cooperatives and Farmer Producer Organizations	Department Of Animal Husbandry and Dairying	launched during 2017-18. The scheme is being implemented by National Dairy Development Board. A corpus of Rs. 300 crore is kept in perpetuity with National Dairy Development Board to be used for providing soft loans for working capital to enable Cooperative Societies and farmer producer organizations engaged in dairy activities to provide a stable market access to farmers. A corpus of Rs. 300 crore is kept in perpetuity with National Dairy Development Board to be used for providing soft loans for working capital to enable Cooperative Societies and farmer producer organizations engaged in dairy activities to provide a stable market access to farmers.

22	Paramparagat Krishi Vikas Yojana (PKVY)	Department of Agriculture cooperation	Launched in 2015, is an extended component of Soil Health Management (SHM) under the Centrally Sponsored Scheme (CSS), National Mission on Sustainable Agriculture (NMSA). PKVY aims at supporting and promoting organic farming, in turn resulting in improvement of soil health. The scheme promotes Participatory Guarantee System (PGS) For India (PGS- India) form of organic certification that is built on mutual trust, locally relevant and mandates the involvement of producers and consumers in the process of certification. Funding pattern under the scheme is in the ratio of 60:40 by the Central and State Governments respectively. Budget allocation for the year 2020-21 is 500 crores
23	Rashtriya Krishi Vikas Yojana – Remunerative Approach for Agriculture and Allied Sector Rejuvenation (RAFTAAR):	Ministry of Agriculture and Farmers' Welfare (MOA&FW)	Rashtriya Krishi Vikas Yojana – Remunerative Approaches for Agriculture and Allied Sectors Rejuvenation is a unique scheme of Government of India, Ministry of Agriculture and Farmers' Welfare. It is aimed at strengthening infrastructure in Agriculture and Allied sectors to promote Agri-preneurship and Agribusiness by facilitating financial aid and nurturing a system of business incubation. MANAGE-CIA, Centre for Innovation and Agri-preneurship is a Centre of Excellence and Knowledge Partner to Ministry of Agriculture and Farmers' Welfare for Implementation of RKVY-RAFTAAR Scheme. This programme will provide states and territories with autonomy to draw up plans for increased public investment in agriculture by incorporating information on local requirements, geographical/climatic conditions, available natural resources / technology and cropping patterns in their districts in order to increase agricultural productivity. The budget allocated for RKVP during 2020-21 is 3700 crores.
24	Formation and Promotion of 10,000 Farmer Produce Organizations (FPOs)	Ministry of Agriculture and Farmers' Welfare (MOA&FW)	Government of India has launched a new Central Sector Scheme titled "Formation and Promotion of 10,000 Farmer Produce Organizations (FPOs)" with a clear strategy and committed resources to form and promote 10,000 new FPOs in the country. Under this scheme, FPOs are to be developed in produce clusters, wherein agricultural and horticultural produces are grown/cultivated for leveraging economies of scale and improving market access for members. "One District One Product" cluster to promote specialization and better processing, marketing, branding and export. Under this Central Sector Scheme with funding from Government of India, formation & Promotion of FPOs are to be done through the Implementing Agencies. Rs 6865 crore
25	Sahi Fasal	The Ministry of jal shakti	Government of India has established the "National Water Mission (NWM)", as one of the eight National Missions under the National Action Plan on Climate Change (NAPCC). The main objective of NWM is "conservation of water, minimizing wastage and ensuring its more equitable distribution both across and within States through integrated water resources development and management"
Rural development programmes and schemes			
26	Aajeevika - National Rural Livelihoods Mission (NRLM)	The Ministry of Rural Development	The mission was launched in June 2011 and was renamed as 'Deendayal Antayodaya Yojana (DAY-NRLM)' in November 2015. With support from World Bank, the Mission aims at creating efficient and effective institutional platforms for the rural poor, enabling them to increase household income through sustainable

			livelihood enhancements and improved access to financial services targeting 7 crore rural poor households, across 600 districts, 6000 blocks, 2.5 lakh gram panchayats and 6 lakh villages in the country through self-managed Self Help Groups (SHGs) and federated institutions and support them for livelihoods collectives in a period of 8-10 years.
27	Mahatma Gandhi National Rural Employment Guarantee Scheme (MG-NREGA)	The Ministry of Rural Development	The Mahatma Gandhi National Rural Employment Guarantee Scheme has evolved as a major program for regeneration of natural resources in the rural part of India. While this program guarantees 100 days of unskilled job per year for every rural household, it also has played crucial role in creating individual and community level rural assets. These assets are largely constructed to re-generate local natural resources. The 2022-23 budgetary allocation for MGNREGA was maintained at the same Rs.73,000 crore level, even though the previous year's revised estimates were 25% higher at Rs. 98,000 crores.

- The above-described baseline scenario highlights the wealth and diversity of national missions and schemes aimed at addressing desertification and land degradation. However, the challenge is to improve the convergence of these different missions at the district level so that resources allocated under these missions can be effectively and efficiently mobilized to realize sustainable land management actions on the ground that can, in turn, achieve national targets set under the various conventions. For this convergence to take place, there is a need for capacity building of government staff, greater participation of local communities, better interaction across the different line departments, as well as improving access at the district level to nationally available SLM technologies and practices.
- **The GEF additional benefits to baseline project:** Government initiatives are also supported by donor-funded efforts to strengthen enabling policy and institutional frameworks and facilitate behaviour change among farmers to embrace improved farming practices. These include multiple GEF-financed projects supporting aligned objectives, such as: the GEF-5 funded project "Integrated Biodiversity Conservation and Ecosystem Services Improvement Project" supported by the World Bank, which designed sustainable forest management strategy across six states (Goa, Maharashtra, Madhya Pradesh, Chhattisgarh, Jharkhand and Nagaland) of India. Another GEF-6 funded project "Green Ag: Transforming Indian Agriculture for Global Environmental Benefits and the Conservation of Critical Biodiversity and Forest Landscapes" supported by FAO, which is developing intersectoral mechanisms and policies to reform India's agricultural sector to support biodiversity conservation in five states (Rajasthan, Madhya Pradesh, Uttarakhand, Mizoram, and Odisha), including the deployment of a 'green landscapes' approach that will provide useful lessons that this project can build upon. Also relevant is the UNEP-supported GEF-5 project "Building the Foundation for Forest Landscape Restoration at Scale" advancing progress towards achieving the Bonn Challenge to bring 150 million hectares into the process of restoration by 2020; and GEF-5 project "Mainstreaming Agricultural Biodiversity Conservation and Utilization in Agricultural Sector to Ensure Ecosystem Services and Reduce Vulnerability across 6 states of India (Rajasthan, Madhya Pradesh, Chhattisgarh, Uttarakhand, Himachal Pradesh, Assam) and UT of Ladakh.

Long term vision

- The long-term vision is to meet the national land degradation neutrality (LDN) targets by strengthening policy and incentive frameworks, building capacities for implementing sustainable land management practices, and implementing and up-scaling landscape-wide integrated sustainable ecosystem management practices to avoid, reduce and reverse degraded production landscapes through implementation of participatory approaches of sustainable land management in six target arid and semi-arid landscapes to restore degraded ecosystems and their essential services, reduce poverty and increase resilience to climate change.

Barriers

- Though, India, being party to the three Rio Conventions, has a strong legal and policy framework for the conservation of rich biological resources, removing several barriers can greatly improve the effectiveness of multi-stakeholder action for addressing land degradation, climate change, achieving land degradation neutrality and reducing biodiversity loss. Key barriers include the following:

- Barrier 1: Lack of landscape level policy coherence across sectors to provide a supportive enabling environment for achieving LDN, NDCs and National Biodiversity Targets (NBTs). LDN is a newly introduced concept, and one that requires multi-sectoral action. Significant effort will be required to mainstream its objectives, technologies, and monitoring into existing research plans, government policies and extension activities. Current policies and plans are based along sector boundaries and there is a lack of coherence in policies focused on or related to sustainable land management. Inadequate institutional capacity, tools and system gaps among landscape stakeholders and in key institutions pose challenges for implementing integrated landscape management. LDN approaches are not yet integrated in land-use planning processes; various departments and divisions do not work in an integrated way. There are no significant national budget allocations for integrated LDN programming. More specifically, systems-thinking and holistic approaches to land management that are required to implement LDN are lacking, including the use of a landscape-scale context for testing, introducing and adapting SLM options within a larger economic and ecological plan.

- Policy decisions related to LDN are sometimes not supported by long term technical, social and economic perspectives, leading to unintended consequences. For example, indiscriminate promotion of *Prosopis juliflora* in Kachchh, in earlier decades has impacted the health of grasslands and indigenous vegetation. Policies on planning and transition of abandoned agricultural lands into either natural landscapes or agriculturally productive systems that provide adequate returns on investment need to be improved. Cropland abandonment and uncontrolled succession processes often lead to the establishment of woody weeds and invasive species, which does not provide adequate forage for livestock and increases costs for returning the land to a cultivatable state.

- Responsible land governance including land tenure security has emerged as one of the critical factors in combating desertification. It is important to note that the data available in India on ownership of land by women are severely inadequate and lack coherence, primarily because for years land records have not kept sex-disaggregated data of land ownership. There is a need to better understand land tenure systems across the project landscapes (at present, there are many land tenure systems, especially in Nandurbar), assess ownership status, and identify drudgery-reducing technologies for women (for example in coffee plantation in Kodagu, and *chironji* extraction in Nandurbar). Based on this, suggestions for reducing land tenure insecurity, especially for women, can be presented for consideration to the government

- ***Barrier 2. Insufficient coordination across sectors and landscape-wide geographies to identify and resolve LDN challenges.*** There is currently a lack of agreed coordination mechanisms for agencies and stakeholders to work together on achieving LDN. Weak institutional platforms and governance mechanisms lead to insufficient coordination and impede stakeholder negotiation and collective action across sectors and landscape-wide geographies to identify and resolve LDN challenges. Given the need for cross-sectoral, landscape-level action, insufficient coordination is a significant barrier to addressing land degradation and achieving LDN. Diverse government agencies are managing programmes with implications for land degradation and desertification. Coordination among these agencies, and even between programs managed by the same agency, is essential when pursuing a multi-faceted objective like LDN. Similarly, there is a need to pull together related agencies and stakeholders at district and state level, to align individual work plans to support sustainable land management. There is inadequate focus on cross-sector approaches to address agriculture-environment-livelihood conflicts. Land reclamation processes would be more effective if implemented with cross-sectoral coordination on a watershed mode, that is led by strong central planning, active participation of stakeholders and institutions involved, and collective ownership.

- ***Barrier 3: Conflicts in resource management at the local level.*** There are several underlying factors that exacerbate resource use conflicts. The lack of clear policy guidance and operational support for local communities has resulted in their inability to play a major role in resource management and protection as well as in developing a collaborative

shared vision for its management and use amongst the key stakeholders. Limited enforcement of regulations regarding resource use coupled with patronization by socio-political elites and vested interests makes it difficult to ensure equitable access and benefits to members of the community. As a consequence, marginalized local communities that usually live in abject poverty tend to resort to desperate means of resource exploitation in pursuit of short-term gains in the absence of a collective long-term strategy for promotion of resource conservation and sustainable use that would benefit them.

- Barrier 4. Lack of adopted and proven technical methodologies and practices to support LDN across a range of land types and contexts. In selecting alternative practices, farmers' participation should be ensured from the beginning, and they need to be appraised of the short-and long-term benefits of the measures, which is currently happening at limited scale. Plans need to be drawn such that farmers can see some short-term benefits and the technologies are remunerative because people participate only when they get tangible benefits. Traditional customs and practices, user rights of common property resources, and sustenance of natural resource base must all be considered so that the new approaches to sustainable land management meet the needs of different sections of society.

- Technical challenges range from market issues to demonstration of effective and practical techniques that can be adopted by farmers, particularly small and marginal farmers. Overall, there is an absence of demonstrated practical and sustainable agro-economic models that will be viable for small and marginal farmers. Land fragmentation, which is a significant issue in India, also causes low productivity and poverty and prevents application of new SLM techniques, requiring attention to participatory platforms, and other approaches that can help overcome this barrier. Though new techniques are emerging that offer both environmental and economic benefits, they need more demonstration and confirmation of viability. One example is ZBNF, which is an agro-ecological method that has attracted success in Southern India and is recognized for its potential to improve farmer incomes through savings on input costs. However, it is yet to be a widely accepted practice supported by state government budgets as questions remain about its viability/replicability and the conditions under which it will be successful at achieving environmental and livelihood benefits. The Indian Council of Agricultural Research (ICAR), Ministry of Agriculture and Farmers Welfare (MoAFW) is currently conducting experiments at multiple locations to establish the viability of ZBNF. There is an urgent need to pilot and demonstrate a range of techniques across different conditions, and show viability for small and medium farmers, to support the adoption and scaling up of SLM practices.

- Barrier 5: Lack of evidence and data that can help decision-makers and local communities identify and monitor the benefits of innovative SLM approaches and technologies. There are gaps in evidence to inform the design of action and investment to implement landscape approaches at scale. There is a lack of real-time data on the condition of land and state of natural resources, as data discrepancies are common and fail to capture on-the-ground realities. Unified, national data protocols and datasets are also missing, leading to failure to show national and regional trends and thresholds within different land cover types and landscape areas (for example, through a national dashboard). Also, there is no monitoring of the benefits of SLM practices nor dissemination of knowledge to support broader scaling up strategies to reduce land degradation. There is no system in place to identify how to balance land degradation and loss of productive land with restoration within given land types, nor the transfer of such lands to other land types. In other words, there is no clear mechanism for monitoring the implementation and achievement of LDN.

- Barrier 6. Insufficient documentation and sharing of knowledge gained from demonstrations, including South- South cooperation, on best practices and lessons learned. In a context where multiple institutions are developing local, on-the-ground interventions, there are ample, largely untapped opportunities to capture and share experience and lessons learned and to apply these to the development of LDN strategies as well as to more localized situations. Knowledge regarding successful approaches is limited based on a combination of factors, including limited lesson capture and poor communication/ dissemination of successful and efficient outcomes. Knowledge of successful approaches, techniques, tools and strategies often fail to be applied to potentially analogous situations. Such knowledge transfer will be essential to achieve the type of scaling up and grassroots support that will be needed to ramp up sustainable land management across India. Limited knowledge transfer also impedes the potential for learning and cooperation between countries facing similar land degradation challenges – an area of South-South

cooperation identified by the Prime Minister of India as important to develop land restoration strategies and address climate change, biodiversity and land degradation[6].

Learning from baseline

- Although the existing baseline currently does not successfully address these barriers, the baseline does present several foundational investments and activities upon which the project can build.
- *Laws and Policies*: The Government of India benefits from a very comprehensive and broad set of laws and policies designed to promote sustainable land management. However, under the baseline, the Government has been challenged in some instances to effectively apply these policy frameworks in an effective way at grassroot level, particularly in terms of addressing fundamental threats to land degradation and land restoration across landscapes.

- *Land Use Planning Programs*: The Government of India has made some progress with the design of land use planning to address its LDN commitments. This includes the national and district level development plans. However, there is a strong need to strengthen these plans in terms of providing the financing, vision and implementation support required to reduce threats to land degradation and sustainable management.

- *Sustainable Private Sector Financing*: Under the baseline, there is little meaningful engagement with the private sector in terms of providing direct and targeted financial support for community development that is organized to deliver global environmental benefits. There is a need to motivate greater private sector investment in community development programs, including sustainable agriculture, livestock management, and forest management, if such programs are perceived as beneficial for both the private sector and communities.

- *Sustainable Production Practices*: Under the baseline, various Government agencies, donor partners, NGOs, CBOs and others have made very limited progress in terms of assisting private stakeholders and rural communities to engage in sustainable practices designed to deliver LDN targets. India has been challenged to capture opportunities for sustainable production improvements based upon best international principles and practices and support private producers to integrate these practices within their production systems. Therefore, there is a need to augment current efforts by providing stakeholders with experience that proves that sustainable agriculture and livestock production can deliver meaningful financial and food security benefits while delivering global environmental benefits, including SLM, LDN, climate change resilience and mitigation, and biodiversity conservation.

- *Improved Institutional Capacity*: The Government of India has institutions in place working towards achievement of the project objective. This includes a large and fairly well-funded institutional staff located at both the national and state levels. District level organizations provide a strong entry point for enhancing project effectiveness. This includes an institutional structure that is designed to support the creation and implementation of land and resource use management planning. However, under the baseline, these agencies have not yet benefitted from targeted capacity building designed to motivate and accelerate necessary changes to achieve LDN targets.

- *Enhanced Knowledge Management*: Ministry of Environment, Forest and Climate Change (MoEFCC) is working towards an improved process for collection and dissemination of knowledge to inform decision-making by private enterprises and other government agencies. However, it is struggling to harmonize these tools in a way that is designed to effectively and efficiently capture data and track information. Simultaneously, stakeholders have been challenged to deliver information and lessons learned systematically to private stakeholders and government decision-makers to incentivize and improve the uptake of sustainable practices. MoEFCC has thus advised to address this short-coming under this project, particularly as climate change advances creating emerging challenges that demand adaptive management.

[6] India plans to restore 2.6 crore hectares of Degraded Land by 2030: PM Modi - https://www.ndtv.com/india-news/prime-minister-narendra-modi-at-un-india-plans-to-restore-2-6-crore-hectares-of-degraded-land-by-2030-2463798?pfrom=home-ndtv_topscroll

III. STRATEGY

- India has recorded some successes in ensuring sustainable land management as well as food, water and livelihood security by adopting both preventive and curative strategies for moving towards land degradation neutrality. However, in light of the significant barriers outlined in the previous section, a number of challenges are expected to persist in the absence of a GEF project, limiting achievement of its LDN targets and uptake of SLM practices across India. National efforts need to be further supported by robust scientific base, effective policies, strong institutional mechanism, adequate financial resources and rigorous monitoring systems. The Government of India sees this project as a strategic opportunity to address the barriers and root causes of land and forest degradation while achieving impact at a meaningful scale.

- Landscape and territorial approaches that focus on people and their aspirations are among the most effective ways to address development needs while restoring and protecting natural resources. Working at the landscape level allows issues to be addressed in a multifaceted way, integrating sectors, involving stakeholders and working at different scales to tackle the underlying causes of degradation and food security, and not just the symptoms. Therefore, any planned intervention should work to formulate comprehensive land-use planning to rationalize land use in a way that addresses interconnectedness and trade-offs across multiple ecosystems, promote good governance to align policy directives at the national and state level, and promote innovations in sustainable land management. In this context, the proposed project will follow a landscape approach in line with GEF's vision to foster sustainable integrated landscapes.

- The project's strategy/ theory of change **(Figure 5)** is premised on avoiding, reducing, and reversing land degradation and desertification, and negative impacts of climate change and biodiversity loss across the degraded landscapes ultimately supporting the achievement of LDN, NDCs and the commitments under the post-2020 Global Biodiversity Framework. It will do so by focusing attention and effort on policy and institutional barriers; multi-stakeholder participation; area-wide assessment, development and implementation of pilot district-level strategies; and knowledge management. It aims to do this through three interconnected impact pathways, as described below. These three inter-connected pathways will be underpinned by monitoring, evaluation and dissemination and communication of lessons learned supporting behavioural and institutional change that leads to adoption and implementation of LDN principles at district, state and national level, and balancing of gains and losses of productive land across the six pilot districts to achieve LDN.

Impact Pathway 1: Strengthened institutional capacities, policies, and cross-sectoral coordination to achieve LDN

- This pathway aims to improve policy and planning frameworks to incentivize sustainable land management, climate change mitigation and adaptation, and biodiversity conservation, as well as remove disincentives, along with enhanced capacity of stakeholders at all levels to support a stronger enabling framework. It will strengthen multi-sectoral and multi-stakeholder coordination and collaboration to bring together all sectors with an impact or interest in LDN, NDCs and NBTs to jointly describe the landscape vision and priorities. Successful realization of this pathway such that it contributes to the goal of LDN rests on the assumption that institutional commitment from national, state, district and local government actors for the policy and institutional strengthening interventions proposed by the project remains strong (A1 in figure), and that capacities developed through the project are not lost due to staff turnover (A2).

Impact Pathway 2: Demonstration of landscape-wide integrated sustainable ecosystem management practices

- This pathway will undertake technical demonstrations to support adoption of economically, ecologically and socially sensitive, as well as climate resilient, sustainable land management practices by relevant stakeholders across agricultural, grazing and forest lands. It aims to incentivize land users to adopt SLM through support of sustainable value chains and securing their rights to value-added products. It will also undertake on-the-ground restoration and rehabilitation of degraded areas. Successful realization of this pathway such that it contributes to the goal of LDN rests on the assumption that local communities in the 6 target landscapes are not resistant to changing their approaches and practices because they perceive benefits from engaging with SLM approaches promoted by the project and appreciate the linkage between achievement of LDN and their livelihoods (A3), and that co-financing contributions are realized as planned (A4).

Impact Pathway 3: Improved LDN monitoring and adaptive management

- This pathway aims to improve capacity for LDN monitoring, assessment and reporting to UNCCD in support of LDN target-setting, as well as capacitating government institutions and other agencies to better document, analyse and disseminate effective intervention strategies for restoring productive landscapes and replication of best practices. The project will generate lessons and experience that can be amplified both nationally and internationally, through South-South cooperation that the Government of India has committed to. Ensuring durable long-term impacts will depend on the landscape-level stakeholders' ability to access and adopt best practices and emerging knowledge regarding SLM, and this pathway will enable that. Evidence-based knowledge exchange regarding best practices will be supported between project districts, as well as with other districts in the country, and with other countries facing similar challenges. Successful realization of this pathway such that it contributes to the goal of LDN rests on the assumption that data sharing across different levels of government and across sectors occurs smoothly (A5), and that there is interest from other districts facing similar DLDD challenges as the pilot sites to learn about the project approach and that knowledge transfer and replication of SLM practices through the six district-level training centers and the multi-stakeholder platform will influence social innovation (A6).

Alignment with GEF focal area

- The LD Focal Area strategy in GEF-7 has three main goals, the first of which is described as "aligning GEF support to promote UNCCD's Land Degradation Neutrality (LDN) concept through an appropriate mix of investments". The project will support this goal through close alignment with the UNCCD Scientific-Conceptual Framework for Land Degradation Neutrality and as summarized in the Checklist for Land Degradation Neutrality Transformative Projects and Programmes (LDN TPP). Specific elements of the latter, and corresponding aspects of project design, are presented in the annex with the LDN Checklist.

- In alignment with LD-1-1 - Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management, the project will focus on productive landscapes where agricultural, forest and rangeland management practices underpin the livelihoods of poor rural farmers, tribal communities and pastoralists. The Strategy's emphasis on sustainable management of drylands in arid and semi-arid zones addressing, among other issues, drought-prone ecosystems and populations, is met by various project activities and by the project's placement at the interface of arid and semi-arid zones. In line with the GEF-7 strategy, the project will include support and access to finance and technical assistance for smallholders and small businesses. Strategies pursued with the private sector will target SMEs that are promoting innovations in agriculture and livestock production systems.

- Finally, the project will include support for South-South cooperation, in line with GEF guidance on this subject and *LD-2-5 Create enabling environments to support scaling up and mainstreaming of SLM and LDN.* This will be primarily through support for the centre of excellence, being established by MoEFCC, which will facilitate and enhance South-South cooperation, and through partnerships with grassroots champions and people's movements allowing transfer of knowledge and techniques across India and beyond.

- The STAP's LDN guidelines for GEF projects (April 2020) inform the development of this project, especially in terms of: (i) the need for concerted and coordination effort to integrate LDN into land use and land management (Outputs 1.1 and 1.2); (ii) maintain or enhance land-based natural capital (Outputs 2.1 and 2.2); (iii) protecting the rights of marginalized and vulnerable land users (Output 1.5); (iv) integrating planning and implementation of LDN into existing land-use planning processes (Output 2.1); (v) seek solutions that provide multiple environmental economic and social benefits (Outputs 2.2 and 2.3); (vi) apply a participatory process in designing and implementing LDN interventions (Output 1.3); (vii) apply local knowledge and data to validate and interpret data (Outputs 3.1.1 and 3.1.2) and (viii) apply a continuous learning approach to review and adjust plans (Output 3.2.1).

Alignment with UNCCD, UNCBD, UNFCCC commitments and SDGs

- The project has been designed to closely follow guidance and national strategy under the UNCCD, as detailed in the UNCCD Scientific-Conceptual Framework for Land Degradation Neutrality and as summarized in the Checklist for Land Degradation Neutrality Transformative Projects and Programmes (LDN TPP). Elements of alignment with the

framework and guidelines are elaborated in **Annex XII (b)** With respect to plans, reports and assessments under relevant conventions, the project is consistent in broad terms including:

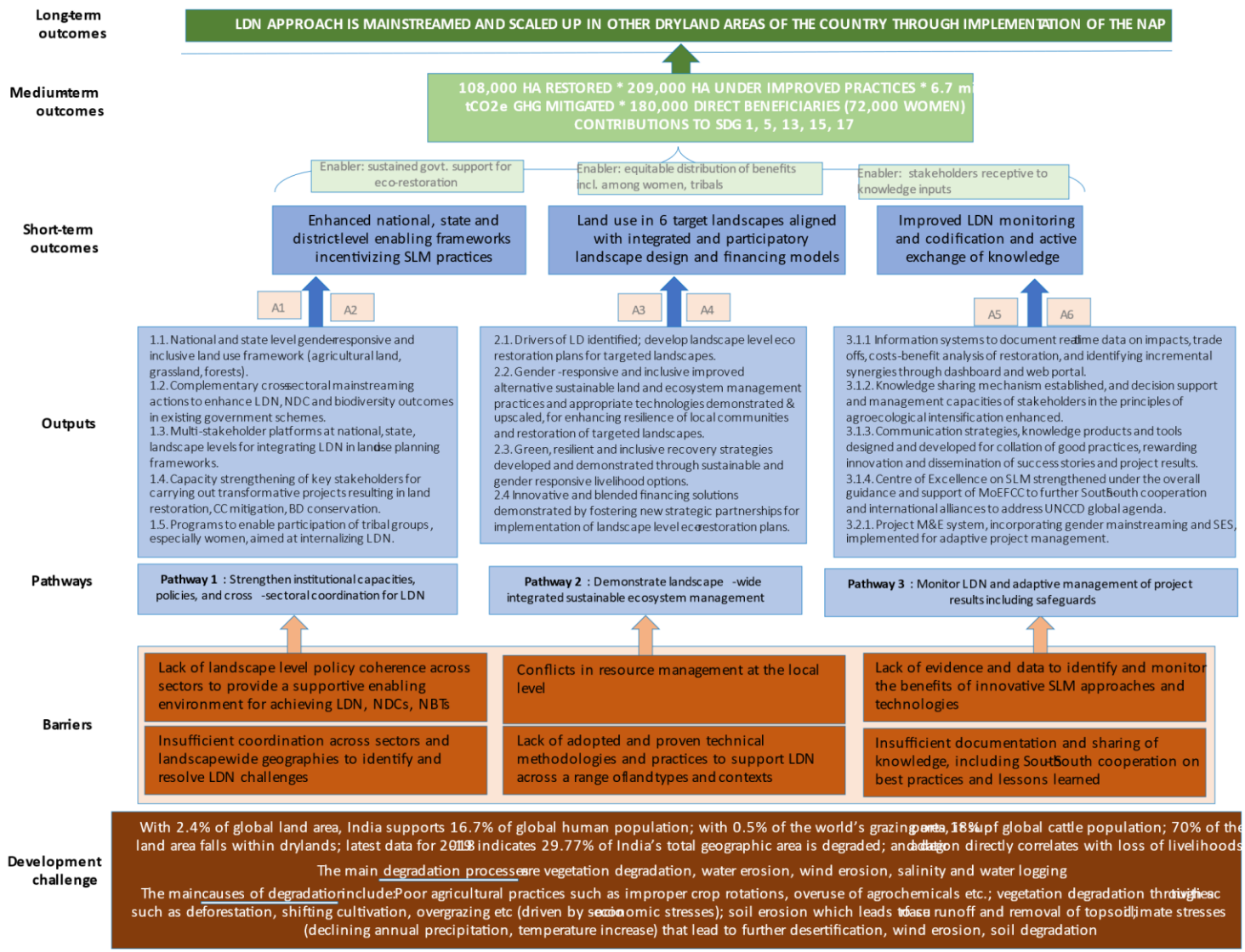
- The project will support national contributions to the UNCCD, through India's National Action Plan to Combat Desertification (NAP-CD), which is currently under revision.
- It contributes to the government's commitment to restore 26 million ha by 2030. During a national workshop co-hosted by UNCCD and MoEFCC on 4–5 December 2018, policy makers, researchers and representatives of civil society organizations, intergovernmental organizations (CSOs) and the private sector provided their input for developing India's national strategy on land degradation neutrality (LDN). During the workshop, the experts discussed technical issues related to setting LDN baseline, formulation of LDN targets, institutional framework and opportunities for LDN transformative projects and programs, and commitments to achieve SDGs.
- The Convention on Biological Diversity (CBD), including National Biodiversity Strategy and Action Plan (NBSAP), as well as the CBD national report, the Cartagena protocol national report and Nagoya protocol national report: The Government of India has set twelve National Biodiversity Targets (NBT) against the twenty Aichi Targets of the Strategic Plan for Biodiversity 2011-2020. The NBTs related to LDN are as follows (NBTs will be revised to align with the post-2020 Global Biodiversity Framework once it is approved):
    - A significant proportion of the country's population, especially the youth, is aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.
    - Values of biodiversity are integrated into national and state planning processes, development programmes and poverty alleviation strategies.
    - Strategies for reducing the rate of degradation, fragmentation and loss of all natural habitats are finalized and actions put in place for environmental amelioration and human well- being.
    - Measures are adopted for sustainable management of agriculture, forestry and fisheries.
    - Ecosystem services, especially those relating to water, human health, livelihoods and well-being, are enumerated and measures to safeguard them are identified, taking into account the needs of women and local communities, particularly the poor and vulnerable sections.

- The United Nations Framework Convention on Climate Change (UNFCCC), including UNFCCC reporting and priorities, National Determined Contributions (NDCs), National Communications and Biennial Update Reports (BURs) and UNFCCC technology needs assessment. The relevant NDC targets are as follows:
    - To put forward and further propagate a healthy and sustainable way of living based on traditions and values of conservation and moderation.
    - To adopt a climate friendly and a cleaner path than the one followed hitherto by others at corresponding level of economic development.
    - To reduce the emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005 level.
    - To create an additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent through additional forest and tree cover by 2030.
    - To better adapt to climate change by enhancing investments in development programmes in sectors vulnerable to climate change, particularly agriculture, water resources, Himalayan region, coastal regions, health and disaster management.
    - To mobilize domestic and new & additional funds from developed countries to implement the above mitigation and adaptation actions in view of the resource required and the resource gap.

- The project contributes to the following SDGs as described below:
    - SDG 1 No Poverty: 180,000 estimated direct beneficiaries, participating in and benefitting from interventions on SLM and livelihoods augmentation, appropriate new technologies and market support. Landscape strategies provide pro-poor and gender-sensitive frameworks for accelerating development in poverty-stricken areas.
    - SDG 5 Gender Equality: Over 50% of the envisaged direct beneficiaries are estimated to be female (72,000 individuals). Women empowerment is expected to be strengthened through increased autonomy with respect to resource management, enhanced participation in decision-making, and increased leadership through active participation in women's groups.

- SDG 13 Climate Action: The project will improve resilience to climate-related hazards and natural disasters in the target landscapes. Climate change mitigation measures will be integrated into the landscape level eco-restoration plans.
- SDG 15 Life on Land: The project aims to improve SLM practices and facilitate restoration in agricultural, pastoral and forest lands. Biodiversity values will be integrated into the landscape level eco-restoration plans, and co-financing from government and the private sector will be mobilized to support conservation and restoration interventions.
- SDG 17 Partnerships for the Goals: Enhancing South-South and triangular regional and international cooperation on and access to best management approaches, specifically participatory models of agricultural, grassland and forest landscape restoration, through strengthening of a Center of Excellence.

Figure 5. Theory of Change diagram



Global environmental benefits

- The proposed project has global, national and local benefits and these benefits are closely linked. The project will demonstrate synergy between the goals and targets of UNCCD, CBD, UNFCCC and Sustainable Development Goals (SDGs), promoting the achievement of LDN and NDCs in three states in India (Gujarat, Karnataka and Maharashtra) across degraded forest land, pastureland and cropland that are important to meet commitments under these conventions. Project's global environmental benefits will include:

1. Improved ecosystem stability and productivity, by adopting sustainable land management practices, and the restoration and subsequent protection of degraded ecosystems for enhancing their structural and functional stability, while improving the livelihood of local communities;
2. Improved carbon sequestration, which would be achieved through the adoption of sustainable agriculture and rangeland/pasture management practices and the restoration of degraded vegetation in areas currently used for livestock production, as well as through promoting afforestation;
3. Conservation of existing forests that could benefit biodiversity and watershed functions and ameliorate climate impacts; and
4. Meeting India's obligations under UNCCD as well as CBD, UNFCC and multiple SDGs and Aichi targets through cross-sectoral interventions and integrated management of land resources.

- As an outcome of project implementation, following global environmental benefits will be delivered:

1. Area of landscapes under improved management practices on 209,000 ha in select districts including, 114,000 ha of agricultural lands, 50,000 ha of grasslands and shrub and 45,000 ha of forests
2. Area of degraded or degrading land restored covering 108,000 ha, including 76,000 ha of agricultural land and 32,000 ha of natural grass and shrublands
3. Carbon sequestration benefits calculated at an estimated 6,793,648 tCO2eq over a 20-year period
4. Direct project beneficiaries 180,000 of which 72,000 are women
5. Expected replication of project approaches across India post-project, resulting in additional achievement of land under improved management, and associated tCO2e – across at least an additional 5 districts
6. Contribution of technical best practices and lessons learned to global knowledge platforms to strengthen global knowledge exchange and replication on restoration through enhanced South-South cooperation

- The national benefits, which are inter-linked with global benefits, generated from the project include:

1. Implementation of National Action Programme (NAP) to combat desertification and mainstreaming SLM principles into national polices and plans
2. Improved economic productivity through sustainable management practices, including efficient use of water resources which would lead to rise in water table, introduction of soil conservation measures to improve soil fertility, introduction of integrated management of land resources to secure sustainability of restored landscapes, and introduction of land use planning to mitigate the drivers of land degradation such as intensive agriculture practices, overgrazing, wastelands, and deforestation
3. Conservation and enhance use of local agrobiodiversity in production systems
4. Sustainable livelihood opportunities for rural communities and reduced poverty through benefits derived from ecosystem goods and services associated with improvement in land management
5. Improved policy and planning framework to support sustainable land management concepts and practices, which once developed and validated will be promoted under its South-South cooperation strategy
6. Enhanced institutional strengths and human-resource capacity to promote sustainable use of natural resources
7. Improved management skills at the local level through participatory learning and actions and involvement of local communities in decision-making processes for making on-the-ground investments for building social infrastructure and promoting SLM practices
8. Interventions would contribute to the achievement of India's LDN target to restore 26 million hectares by 2030.

Socioeconomic benefits to be delivered by the project at national and local levels

- India is the second most populated country in the world and projected to surpass China to become the world's most populous country by 2023. It is expected to become the first country to be home to more than 1.5 billion people by 2030, and its population is set to reach 1.7 billion by 2050. With nearly 195 million undernourished people, India shares a quarter of the global hunger burden. Nearly 47 million or 4 out of 10 children in India are not meeting their full human potential because of chronic undernutrition or stunting. The impacts are multi-generational as malnourished girls and women often give birth to low birth-weight infants. There has also been an increase in the prevalence of overweight and obesity in children and adolescents in India, which has life-long consequences of non-communicable diseases in adulthood[7].

- The Government of India has initiated large food security and anti-poverty programmes, which resulted in five-fold increase in food grain production from 50 million tonnes in 1950-51 to about 250 million tonnes in 2014-15. However, there are critical gaps in terms of inclusion and exclusion errors. Women and girls are particularly disadvantaged. Schedules tribes, as well as schedules castes, also constitute particularly vulnerable sub-groups. Despite the achievement of national food self-sufficiency, new challenges have emerged: slowing agriculture growth, climate change, land degradation and shrinking bio-diversity. Large tracts of farmlands in India have become barren due to imbalanced fertiliser use and excessive use of a single fertiliser, urea.

Box 12. Responsibility for taking actions and creating conditions to ensure that ecosystems are restored and remain healthy lies as much on spatially and temporally distant people as on the ones living in the proximity. Urbanization, technological applications, industrial and economic activities and development sectors need to account for the unintended or intended adverse impact of their actions on natural habitats. Otherwise, local communities, women and vulnerable sections only would continue to suffer and would be driven to exploit natural resources unsustainably.

- As mentioned in the baseline section, the government of India launched a number of programmes to double farmers' incomes by 2022. These seek to remove bottlenecks for greater agricultural productivity, especially in rain-fed areas. In support of the Government initiatives, the aim of Sustainable Land Management (SLM) programmes is to maintain land resources and their associated ecosystem functions while, at the same time, sustaining production of goods and services, especially safe and healthy food (Box 12). Effective and widespread adoption of SLM will also deliver large social and economic benefits through productivity gains and the enhanced resilience of agroecosystems.

- In this context, the project will generate scientific knowledge about SLM and its contribution to combating land degradation, enhancing food security and addressing climate change adaptation and mitigation. The project outcomes are intended to inform design and implementation of SLM programs, including supporting planning for land degradation neutrality (LDN). In addition, the project will support policy actions in India on sustainable land management through scientific-based studies through: (i) determining key causes of land degradation across agro-ecological regions of India, and (ii) better understanding of economic, social and environmental costs of land degradation and net benefits resulting from taking actions against degradation compared to inaction. The project will ensure that experiences in piloting new approaches for engaging, incentivizing, mobilizing investment in, and supporting smallholders and rural community members in restoration are adequately monitored, evaluated, and developed into high-quality knowledge products that are disseminated through relevant knowledge platforms and fora, so that these experiences can inform and further support restoration efforts going forward.

- Following socioeconomic benefits are expected as an outcome of this project:

1. Improved economic productivity through sustainable management practices, including efficient use of water resources, which would lead to rise in water table, introduction of soil conservation measures to improve soil fertility, introduction of integrated management of land resources to secure sustainability of restored landscapes, and introduction of land use planning to mitigate the drivers of land degradation such as agriculture, overgrazing, wastelands, and deforestation;
2. Conservation and enhance use of local agrobiodiversity in production systems;

[7] https://in.one.un.org/un-priority-areas-in-india/

3. Best practices for engaging smallholder and rural communities in restoration, including building awareness, support and capacity for restoration, and considering socioeconomic, cultural, and environmental factors;
4. Improved management skills at the local level through participatory learning and actions and involvement of local communities in decision-making processes for making on-the-ground investments for building social infrastructure and promoting SLM practices;
5. Sustainable livelihood opportunities for rural communities, including scheduled tribes, and reduced poverty through benefits derived from ecosystem "goods and services" associated with improvement in land management.

Incremental/additional cost reasoning

- The incremental cost justification for GEF financial support to the project strategy is summarized below (Table 2).

Table 2. *Incremental cost reasoning*

Baseline practices	Alternative to be put inplace	Global environmentalbenefit
***Policy, planning and institutional shortcomings*:** LDN is a newly introduced concept and significant effort will be required to mainstream its methodologies, monitoring and objectives into existing plans, policies and programs. Current policies and plans are based along sector boundaries and there is a lack of coherence in policies focused on or related to sustainable land management and achievement of LDN. ***Coordination issues*:** Several governmental agencies are managing programmes with implications for land degradation and desertification. Coordination amongst these agencies and even between programs managed by the same agency, is essential when pursuing a multi-faceted objective like LDN. Related issues may involve coordination among districts and in some cases, states. Given the project's cross-cutting, landscape-level remit, insufficient coordination poses an important barrier to achieving LDN ***Technical constraints*:** There is a wide variety of technical constraints / barriers limiting the ability of land users and land managers to pursue productive ventures sustainably - whether such activities take place on agricultural, grazing or forest lands. ***Knowledge constraints*:** In a context where multiple institutions are developing local, on-the-ground interventions, there are ample, largely untapped opportunities to capture and share experience and lessons learned and to apply these to the development of national strategies as well as to more localized situations. Knowledge regarding successful approaches is limited based on a combination of factors, including limited lesson capture and poor communication/ dissemination of successful and efficient outcomes. In addition,	• Improved state and district-level development and land use planning processes based on mainstreaming of Land Degradation Neutrality (LDN) targets and a landscape-level monitoring system. • Multi- stakeholder coordination platforms will ensure enhanced coordination and rationalization of efforts by private and public sectors and civil society. • Improved practices are being applied to land use management of croplands, pastures and forest lands within the landscape, under the overall guidance of participatory LDN strategies • Technical and practical data, information, knowledge and innovation is moving rapidly at multiple geographic levels and is thus increasingly available for uptake, and application in ways that reduce land degradation and desertification. • Center of excellence for capacity building for LDN enhancing South-South cooperation.	• 317,000 ha under improved management practices including: (a) adverse changes in the quality of non-degraded land and forest avoided on 209,000 ha through improved practices and technologies (114,000 ha of agricultural lands, 50,000 ha of grasslands and shrub and 45,000 ha of forests) and (b) 108,000 ha of land currently undergoing degradation or degraded restored (76,000 ha of agricultural land and 32,000 ha of natural grass and shrublands) • Direct carbon sequestration benefits estimated at 6,793,648 tCO2eq over a 20-year period, with indirect benefits to flow from replication and policy uptake • Biodiversity benefits associated with management of existing forests and farming systems • Additional areas of land brought under improved management practices through replication and local outreach and through project engagement in global knowledge platforms for restoration to share/ exchange lessons and best practices with other countries, facilitating south-south cooperation and global learning.

Baseline practices	Alternative to be put inplace	Global environmentalbenefit
knowledge of successful approaches, techniques, tools and strategies often fail to be applied to potentially analogous situations		

IV. RESULTS AND PARTNERSHIPS

- The project will take a three-pronged approach starting with strengthening the enabling environment for LDN; followed by support to develop and implement SLM practices, and scaling up of resilient SLM practices across degraded landscapes in 6 pilot districts; two each from Gujarat (Kachchh and Banaskantha), Maharashtra (Nandurbar and Aurangabad) and Karnataka (Kodagu and Bagalkot) States; and developing information and knowledge management systems; national outreach approaches; and enhanced South-South cooperation. These three components will be underpinned by monitoring, evaluation and dissemination and communication of lessons learned supporting behavioural and institutional change that leads to adoption and implementation of LDN principles at district, state and national level, and balancing of gains and losses of productive land across the six pilot districts to achieve LDN.
- Based on available national baseline information and in consultation with focal national partners, especially the Desertification Cell of MoEFCC, the project will be using three elements of land degradation namely: current land use, process of degradation, and severity level; mainly caused by vegetation degradation, water erosion, wind erosion, salinity and water logging. The target landscapes include the following types of degraded lands: (i) agriculture irrigated, (ii) agriculture unirrigated, (iii) grassland/ grazing land, (iv) forest/ plantation, and (v) land with scrub. Wherever possible, the project will also target dune/ sandy, especially in Banaskantha District; and barren areas and surface water bodies in Kachchh District of Gujarat. In selecting target states and their respective districts, care was taken to include all kinds of landscapes as described and such sites are replicated at least twice, where possible, so that results across sites can be replicable.
- During the implementation of the project, efforts will be made to address the specific disadvantages faced by women in rural societies and to empower them to play an equal role to men in the sustainable development of the target area. Improved capacity of women would contribute to the objectives of this project in increasing investments in the long-term sustainability and productivity of land, as well as specifically the incomes of women and female-headed households. The project will strengthen informal women groups, associations and cooperatives to strengthen their market access, position in value chains and control over revenues from agriculture, agroforestry and trade. Particular emphasis on the roles and rights of women will also be included in policy and institutional framework.
- Overall result of the project will be much more cohesive and coordinated approach to addressing the root causes of land degradation across target landscapes. The project will also serve to emplace a programmatic approach to addressing degradation issues that will measurably shift the baseline at both national and state levels to effectively realize LDN targets and associated SLM objectives and GEBs. GEF's investment will in this way catalyse an outsized impact that is both effective and sustainable. A major part of this effort will support the Government of India to adopt a close-out strategy that ensures financial and institutional changes are in place to make certain sustainable financing and human resources are allocated to ensure sustainable results that endure beyond the project's investment period.

Expected Results

- The objective of the project is to assist the Government of India to achieve its goal "to combat land degradation and desertification" with the primary objective "to achieve land degradation neutrality (LDN) through sustainable ecosystem-based management and restoration of degraded landscapes across agricultural, forest, pastoral lands and surface water bodies". The multiple regulatory and provisioning ecosystem services to be strengthened by the project include: improved soil health, carbon sequestration, water quality and flow (including groundwater

resources); biodiversity conservation and provisioning of food, fodder, non-timber forest produce and fuelwood for improved livelihood options.

- In order to achieve the above objective, the project's interventions are organised into three high-level 'Outcomes' expected from the three project Components. Outputs/activities under these 'Outcomes' will build on the experiences and up-scale the results of the SLM programmes and activities under implementation in and outside of the country. At the national and state levels, the project will ensure a strong and sustainable enabling framework for adopting/implementing SLM approaches to land degradation. A high proportion of the project budget and effort will be given to develop, demonstrate and up-scale successful SLM approaches across target landscapes and support the development of SLM land use planning and decision support system. Project "Outcomes" and their respective "Outputs" and "Activities" together with their deliverables for each "Component" are described below:

COMPONENT 1. ENABLING INSTITUTIONAL, STRATEGIC FRAMEWORKS AND POLICIES FOR INTEGRATED SUSTAINABLE LAND MANAGEMENT (SLM) PRACTICES AND RESTORATION OF DEGRADED PRODUCTION LANDSCAPES.

- Key deliverables for Component 1 are as follows:
- At least 5 national government development schemes mainstreaming complementary SLM and restoration of degraded landscape activities.
- At least 3 state-level and 6 district-level multi-stakeholders' participatory platforms, involving government departments, research and extension agencies, tribal communities, private players, established and LDN strategy 2030 negotiated, adopted and demonstrated by these platforms.
- Awareness and capacity building programmes identified and designed in consultation with national partners and at least 35 training-of-trainers programs (10 in each state and 5 national and global) on SLM practices (watershed management, climate smart agriculture, grassland and forest management practices, value addition and improved marketing, etc.) conducted.
- Specific capacity building and awareness programs for internalizing LDN designed and implemented in 6 target districts for local tribal communities (at least 50% women participation).
- Institutional arrangements in place at national, state and district level to promote up-scaling of SLM practices through evidence-based and locally relevant information on land degradation and restoration status.

Outcome 1: Enhanced national, state and district-level enabling frameworks incentivizing SLM practices and supporting participatory multi-sector platforms to avoid, reduce and reverse land degradation, biodiversity loss and climate mitigation.

- Currently India does not have a specific national policy or legislative framework for combating desertification. As such, the concern for arresting and reversing land degradation and desertification gets reflected in several national policies, missions and programmes such as: National Action Programme to Combat Desertification; Environment Protection Act; National Environmental Policy; *Pradhan Mantri Krishi Sinchayee Yojana*; Social Forestry and Joint Forest Management Programs, National Mission for Green India, National and State Action Plan on Climate Change, National Mission for Sustainable Agriculture (Sub-missions on - Agro-Forestry, Rainfed Area Development, Soil Health Management, and Climate Change and Sustainable Agriculture), National Horticulture Mission, *Rashtriya Krishi Vikas Yojana* – Remunerative Approach for Agriculture and Allied Sector Rejuvenation, *Paramparagat Krishi Vikas Yojana*, Mahatma Gandhi National Rural Employment Guarantee Scheme, and many others, which have enabling provisions for addressing issues relating to combat desertification and land degradation.

- Further, the Desertification Cell of the MoEFCC undertakes activities to help strengthen inter-ministerial coordination to bring diverse stakeholder groups together and lay the foundation for undertaking activities for combating desertification and mitigating the effects of droughts. While the identification of national sectors and policies that could benefit from synergistic planning/programming of the three Rio conventions and enhancement of the institutional and scientific capacities and awareness of relevant stakeholders is in progress, review of national policies to enhance cooperation and synergies as well as evaluation of national plans and identification of gaps and synergies has not been fully undertaken, especially at state and district level. In addition, there is also no specific capacity building training programme at national as well as state level, including capacity building of tribal communities, for SLM practices for achieving LDN targets.

- In designing Component 1, PPG team followed the instructions provided under Module D "Create an enabling environment for LDN, including establishing required policies and undertaking preparatory assessments[8]", which clearly define achieving neutrality requires an enabling environment, and some preliminary assessments in order to seek solutions that provide multiple environmental, economic and social benefits, and minimise trade-offs. Project component will apply a participatory process that include stakeholders, especially land users, in designing, implementing and monitoring interventions to achieve LDN. Under Component 1, policies review for land governance, land use planning and natural resource conservation and management will be undertaken, and revision, where required, to provide an effective policy framework for the implementation of LDN will be suggested. Additionally, experiences from other countries will also be analyzed such as: (i) Land degradation neutrality: The science-policy interface from the UNCCD to national implementation[9], (ii) Opportunities and Limitations for Achieving Land Degradation-Neutrality through the Current Land-Use Policy Framework in Kenya[10], and (iii) Taking Land Degradation Neutrality from concept to practice: Early reflections on LDN target setting and planning[11].
- Accordingly, this Outcome will strengthen institutional capacity at national and across three target states level, including tribal and local communities, and will create an enabling environment to implement LDN following the UNCCD response hierarchy of avoiding, reducing and reversing land degradation using standard tools and approaches for LD and SLM assessment. LDN policy gaps at national and state-level will be addressed and participatory collaborative and coordination mechanisms will be strengthened and successfully demonstrate among key sectors (agriculture, grassland and forest). This will be underpinned by an understanding of the key indirect and direct drivers of land degradation, including climate change, that leads to loss of productive land as well as the associated costs to local communities and the national economy. Barriers to scaling up of SLM will also be understood at the landscape level in order to design strategies and policies that will promote scaling up to achieve LDN. Outcome 1 will be achieved through the following five Outputs and their respective activities, that will strengthen the policy and institutional enabling environment for LDN, enhance the understanding of LD drivers, and enhance the capacity to implement LDN at national and state level:

Output 1.1: National and state level gender-responsive and inclusive land use framework developed for restoring land degradation, conserving biodiversity and positive climate action

- There are no specific guidelines available for States to systematically operationalize land use planning process in order to maintain its productive potential and ecological functions and services, that are socially inclusive and driven by local community and legally accepted by State level line departments. Developing such guidelines helps in using the land resources as per their land capability classification and making land management decision more informed, and binding. Integrated land use policies are therefore needed at States level to guide sectoral policies (agriculture, forest, rangeland, environment) for efficient and effective utilization of available resources.
- Such integrated management of land and water resources requires appropriate cross-sectoral[12] institutional arrangements. A preliminary review of policies for land use planning; climate action and natural resource (including groundwater) governance and management plans, including current subsidies and extension systems, was completed during the PPG phase to identify disincentives and incentives, and inform the detailed design of project activities and targets, as described above under baseline section. Barriers identified to LDN include: tribal communities limited exposure to high productivity practices, lack of knowledge/information about high value/growth products, weak market linkages and inefficient supply chains with high levels of wastage during food processing. The state level gender-responsive and inclusive land use framework will seek to bring about incentives that address a higher value mix of farm output, capture greater value through better storage and processing, and make market mechanisms more efficient for farm inputs, financing, and sale of output. Ensuring due diligence to comply with guidelines set by Courts and Tribunals will be another area for attention, along with mainstreaming LDN objectives and strategies into relevant state plans.

[8] Land Degradation Neutrality: guidelines for GEF projects A STAP document November 2019
[9] https://www.sciencedirect.com/science/article/abs/pii/S1462901118305677?via%3Dihub
[10] https://www.mdpi.com/2073-445X/8/8/115
[11] https://www.sciencedirect.com/science/article/abs/pii/S1462901118313881?via%3Dihub
[12] Cross-sectoral refers to various line departments, local Panchayat and NGOs, engaged directly or indirectly in SLM practices in close coordination with CBOs and communities.

- The project will assess at least five major planning policies and guidelines currently under implementation at national and state level to identify supporting institutional, technical and planning gaps and related arrangements at national and state level to promote up-scaling of SLM practices through evidence-based and locally relevant information on land degradation and restoration status. The project will provide technical and financial support based on SLM principles, and develop a framework to ensure the sustainable utilization of land resources that would help in promoting land conservation practices, providing sustainable growth, reducing land degradation, poverty alleviation, and improving wellbeing of the people in line with the government's overall development objectives. A systematic approach to integrate the concept of SLM into national and state sectoral policies, legal and regulatory frameworks shall be the major outcome of this Output. The framework will be developed through a Strategic Environmental and Social Assessment (SESA), in line with UNDP Safeguards, and be supported by the Social Inclusion Planning Framework, in respect of the agreed Free Prior Informed Consent (FPIC) protocol. Indicative activities under Output 1.1 include:

Activity 1.1.1: Analyse existing national and state sectoral policies, legislation and regulatory frameworks to map entry points for LDN in relevant sectors, such as agriculture, grassland, forestry, biodiversity, climate change, science and technology, and rural development, ensuring the analysis is gender-responsive.

Activity 1.1.2: Assess and analyse development and land use planning policies and processes under implementation across target landscapes (agriculture, grassland and forest) in pilot states and districts.

Activity 1.1.3: Review international frameworks in the context of national priorities to identify synergies between land restoration, biodiversity conservation and climate action goals.

Activity 1.1.4: Based on the analysis of existing policy, legislative and regulatory frameworks, as well as on the SESA, draft land use frameworks (one each for agriculture, grassland and forest) at the national (one) and state (three) levels for achievement of LDN through integrated landscape management approaches to avoid-reduce-reverse land degradation, conserve biodiversity and promote positive climate action.

Output 1.2: Complementary cross-sectoral mainstreaming actions developed and demonstrated to enhance LDN, NDC and biodiversity outcomes in existing government schemes where agricultural, forestry and rangeland management practices underpin the livelihoods of poor rural farmers and pastoralists.

- MoEFCC, as National Coordinating Agency for the implementation of the UNCCD in the country, developed 20 years comprehensive National Action Programme (NAP-2001)[13] to combat desertification in the country with major focus on: community based approach to development and improving quality of life of local communities; awareness raising, drought management preparedness and mitigation; Research and Development initiatives and interventions, which are locally suited; and strengthening self-governance leading to empowerment of local communities. Subsequently, it was also proposed to initiate activities that include, among others, assessment and mapping of land degradation at national and state level, drought monitoring and early warning system, drought preparedness contingency plans, and on-farm research activities for development of indigenous technology. India is also actively participating in the Thematic Programme Network (TPN) / Regional Cooperation Networks (RCN), which were established at the regional level by affected country Parties to address specific themes of relevance in the framework of the UNCCD implementation. The Asian region is working on six TPNs and India is host country for TPN 2 on "Agro-forestry and Soil Conservation" in Arid, Semi-arid and Dry Sub-humid Areas. In addition, India is also participating actively in TPN 1 on "Desertification Monitoring and Assessment" and has joined the TPN 4 on "Water Resources Management for Agriculture in Arid, Semi-arid and Dry Sub-humid Areas".
- Following the commitments under its NAP (2001), India is progressing towards achieving its Land Degradation Neutrality target of restoring 26 million hectares by 2030. However, 96.40 million ha (29.77%) of the country TGA is still under land degradation (SAC, 2021). Therefore, achieving its target by 2030 will only be possible by creating and implementing a robust plan for ecosystems restoration and improving quality of life of local communities, and in line with the changing new national and global priorities. The Project shall provide support through identifying and

[13] National Actional Plan to Combat Desertification, MoEFCC, September 2001.

implementing key remedial measures (institutional, technical, knowledge and planning) to remove barriers to current implementation of existing policies to address LDN, NDCs and national biodiversity targets. Accordingly, complementary mainstreaming actions will be identified across different Government schemes, which have significant components for SLM and restoration of degraded landscapes, with the intent of ensuring improved mainstreaming with LDN, NDC and biodiversity conservation outcomes. Project will also ensure that such complementary actions are mainstreamed into relevant sectoral and cross-sectoral plans, programmes and policies.

- The project will put in place an evidence-based effective and comprehensive decision-support system for planning, monitoring and adapting climate-resilient SLM at the State and district levels - critical to mainstreaming LDN and mobilizing the investment needed for implementation. The goal of this Output will be to provide decision makers the information required to make sound land use management decisions that reflect climate change challenges into SLM practices. It will do so by supporting the development of a land and ecosystem degradation assessment, monitoring and decision-support system that is relevant to target districts and landscape level planning and management. Networking for SLM Decision Support System will be reinforced for systematic data collection and its management. Such land resource database will be managed at a central level in the respective State and will be periodically updated and will be made available to the land resource managers and planners through a customized web-based application. Such arrangements will help in: (i) development and enforcement of guidelines for integrating SLM into sectoral development planning and budgeting processes (agriculture, forestry, livestock), (ii) monitoring of ecosystem degradation and impacts at district level; and (iii) developing knowledge management system on SLM adaptation for increasing soil carbon through diversification of crops, selection of drought tolerant species and improving vegetation cover. This Output will also assist in on-going efforts to revise the current National Action Plan for combatting desertification, drought and land degradation, by supporting further decentralization of planning around DLDD issues. It will be supported by the SESA, and the state-level action plans will be supported by the Social Inclusion Planning Framework, in respect of the agreed Free Prior Informed Consent (FPIC) protocol. Indicative activities under Output 1.2 include:

Activity 1.2.1: Undertake a review of government schemes currently under implementation at state and district levels to identify opportunities for integrating SLM and restoration of degraded lands in these schemes. This mapping of existing funding sources and expenditures will help identify opportunities for mainstreaming SLM and allocating existing funding towards achieving LDN targets, NDCs, and NBTs.

Activity 1.2.2: Based on India's NAP to combat desertification, and in order to further decentralize planning around DLDD issues, develop state-level action plans in the target states; this will also serve as a standardized framework that can be replicated in other states post-project.

Activity 1.2.3: Develop effective and comprehensive decision-support system for planning, monitoring and adapting climate-resilient SLM at the State and district levels.

Output 1.3 Multi-stakeholder platforms established and operationalized at national, state and landscape levels for integrating LDN in land-use planning frameworks.

- Multistakeholder partnerships have long been recognized as a key mechanism for supporting effective policy planning, prioritization, implementation and outcomes; yet the need for coordination among sectoral ministries, institutions and actors has become more important than ever. The need to implement ambitious goals of international conventions (UNCCD, UNFCCC and UNCBD) and to accelerate action towards achieving the SDGs and related targets, a transition to a more integrated approach to decision-making is critical. Policy-makers and stakeholders will need to address the interactions among sectors in terms of both synergies and trade-offs. In order to achieve a shared understanding of such challenges, it is important to get the most complete picture possible of the different perceptions of the problem at hand, to clarify the root causes, and to agree on the need for a cross-sectoral approach. Collective identification of the sectors that should work together on a given target is a first step and will require managing the inherent tension between self-interest and collective interests.
- Although the impetus for cross-sectoral collaboration often comes from non-state actors, government support and commitment are essential for creation of the institutional arrangements for cross-sectoral planning, budgeting and

decision-making. This support can come in the form of facilitation of cross-sectoral engagement by different ministries; changes in policies associated with multiple sectors; shifts in approaches and policy related to planning and financing; ensuring ownership by different government stakeholders; negotiation among government bodies; and linking and aligning administrative scales. Government can also play an important role in facilitating sustained cross-sectoral coordination through enhanced interactions with multistakeholder platforms and negotiations with donors for investments in cross-sectoral approaches. However, moving towards cross-sectoral coordination does not mean starting with a blank slate; rather it is about building on existing relationships and processes that work and creating ownership of the new approach. Therefore, the initial step for promoting such cross-sectoral coordination is to take stock of the initial cross-sectoral dynamics across different operations levels. A clear understanding of current goals, policies, leadership, flexibility in decision-making and relationships across sectors and among stakeholders is required before planning coordination efforts.

- To achieve this objective, project will establish and/or strengthen state and district-level multi-stakeholder land degradation and desertification alliances/platforms. The purpose of such platforms will be to bring together government (District, State and Central Government) authorities, non-Government stakeholders, private sector, academia, civil society and community-based organizations for building synergised actions towards achieving targets for LDN, NDCs and biodiversity conservation. Whenever engaging with tribal peoples and their representatives, the project will follow the Social Inclusion Planning Framework and associated FPIC protocol. Such platforms would facilitate discussion and development of strategies towards addressing the threats due to land degradation, desertification, low crop productivity and water stress, including groundwater resources depletion and technologies for energy efficiency. The project will not only establish multi-stakeholder platforms, but will also demonstrate the effectiveness of achieving project outcomes and targets through limited resources available for land restoration across project target sites. Based on the positive outcome, the project will develop a framework for multi-stakeholder coordination mechanism for integrated activities into all stages, from information sharing and planning to decision-making, budgeting and implementation. Indicative activities under Output 1.3 include:

Activity 1.3.1: Identify key stakeholders across target project states, districts and landscapes, and undertake a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis of their capacity to implement a cross-sectoral approach to achieving LDN targets.

Activity 1.3.2: Based on the results of SWOT analysis, establish multi-stakeholder platforms at state, district and landscape levels through sensitisation programmes; and demonstrate effective implementation of SLM practices for improved livelihood and ecosystem services through multi-stakeholder platform across project sites.

Activity 1.3.3: Develop framework for multi-stakeholder coordination mechanism for scaling out to other states, thereby supporting achievement of the overall national target for LDN.

Output 1.4 Capacities of key stakeholders strengthened for carrying out transformative projects resulting in land restoration, climate change mitigation and biodiversity conservation.

- Under this output, the project will support the development of a strategic, long-term approach to individual capacity building in SLM for professional staff of national, state and district level line departments and agencies, as well as NGOs and community leaders at district level. Following an assessment of the key gaps and requirements in knowledge, this will involve the design of a formal certifiable SLM training program (with competence standards / accreditations) as part of the in-service career progression of the professionals. The training programme will establish formal cooperation agreements for delivery with specialised universities, institutes, NGOs and the management and professional development department. These will be supported by preparation of manuals, presentations, advance study materials and written hand-outs for field learning, as well as tests to determine competency standards. The capacity building program will generate training materials that reflect the Indian landscape level context, while reflecting best international principles and practices.
- The learning programs will also engage district level government officials from all targeted states and districts and will emphasize the processes and requirements for the generation of legally enforceable land use planning targeting LDN. This will include best international principles and practices relevant to each of the identified degradation drivers, gender inclusive and community participatory planning exercises, and evidence-based decision-making. The

project will complete a rapid institutional capacity assessment prior to the commencement of the training programs. This will include an analysis and assessment of existing laws and policies; available data and information; and, monitoring and evaluation tools related to land degradation issues. The project will also facilitate in arranging district and village level SLM short-training courses on various aspects of land use planning, agriculture, forestry and rangeland management, and efficient use of water resources. The target groups will be village activists, NGOs, community organizations, etc. that can then replicate the learning among farmer groups.

- Preliminary assessment of the state level capacity building needs was assessed during PPG state level inception workshops. A full training and capacity enhancement strategy will be detailed during the project's inception period and will be presented at the national level inception workshop for stakeholder input. This will include finalisation of specific training modules, target stakeholders, and identification of proposed trainers. The project will specifically look towards harnessing existing expertise within national system as well as project global partners (such as Alliance of Bioversity International and CIAT, International Crops Research Institute for Semi-Arid Tropics), including persons with global knowledge regarding land use planning; sustainable agriculture, forest land livestock management; data collection; and land rehabilitation practices. The project in this way will be able to capture and benefit from the existing global knowledge base which will greatly accelerate completion and implementation.
- The various institutions identified, which will be carrying out various training programmes, during the PPG phase includes: India Council for Forestry Research and Education and its institutions, State Forest Departments, State Nodal Departments for Energy Efficiency, National Biodiversity Authority and State Biodiversity Boards, Joint Forest Management Committees, Eco-development Committees, institutions of the Indian Council of Agricultural Research [Central Arid Zone Research Institute (ICAR-CAZRI), Indian Grassland and Fodder Research Institute (ICAR-IGFRI), Central Agroforestry Research Institute (ICAR-CARI), Indian Institute of Soil and Water Conservation (ICAR-IISWC), Indian Institute of Horticultural Research (ICAR-IIHR), Central Soil Salinity Research Institute (ICAR-CSSRI) and others]. Capacity building programmes for grassroot agencies, communities, champions farmers, both male and female, will be organised through strengthening existing facilities of Krishi Vigyan Kendras (KVK) of the Indian Council of Agricultural Research (ICAR); Van Vigyan Kendra (VVK) or Forest Science Centres (FSC) and Water User Groups. Whereas, capacity building of researchers and extension stakeholders will be organised in coordination with national research and development centers. Indicative activities under Output 1.4 include:

Activity 1.4.1: Assess capacity building needs of stakeholders and establish training coordination mechanisms at national, state and district-levels, including gender mainstreaming in LDN.

Activity 1.4.2: Develop landscape specific (agriculture, grassland and forest) training modules for target stakeholders, including gender dimensions, in achieving national target for LDN.

Activity 1.4.3: Identify and engage national agencies that can deliver the training, and develop a roster of experts, including global experts.

Activity 1.4.4: Organise training programmes for all stakeholders.

Output 1.5 Programs to enable participation of tribal groups[14], especially women, aimed at internalizing LDN implemented in relevant state in partnership with local agencies with State and District administration.

- Constituting about 8% of the total population of India, tribal peoples are among the most vulnerable groups in the country. Not only do they share with other disadvantaged groups the common travails of economic deprivation, they also face perennially grave threats to their cultural integrity and socio-political freedoms. The importance of protecting the interests of vulnerable tribal communities was incorporated into the Indian Constitution. Article '46' of the Constitution enjoined upon the state 'to promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes (SC) and Scheduled Tribes (ST), and protect them from social injustice and all forms of exploitation'. The landscape of the Tribal Community have unique endowment of rich natural resources and they have been applying the traditional knowledge and sustainable resource management practices through generations. The natural ways of cultural practices for biodiversity

[14] Indigenous people in India are referred as tribal groups – currently India is a home to about 700 tribal groups with a population of 104 million, as per 2011 census, constitute second largest tribal population in the word after Africa.

conservation, is found within indigenous lands of the tribes. Thus, such landscape of the tribes provides both opportunity and challenge for conserving biodiversity and supporting livelihoods of the community.

- Traditional Knowledge is very important and tribal communities have to maintain some of their traditional knowledge and practices through use, that are relevant even today, for the sustainable land management and conservation and use of agro-biodiversity (Box 13). However, many of the tribal community, particularly those living around degrading forests, face the threat of biodiversity loss causing negative impact their quality of life due to land degradation and deforestation. In recent years indigenous knowledge of sustainable harvesting of the biological resources for conservation and disseminate traditional knowledge as the cultural practices has been eroding due to acculturation and the change of lifestyles among many tribal societies.

Box 13. Tribal communities make important contributions in conservation and sustainable use of biodiversity both as users and conservers. Local level institutions such as Joint Forest Management Committees (JFMCs) and Biodiversity Management Committees (BMCs) and a vast presence of CSOs and NGOs help ensure and consolidate their participation.

- With growing population to feed upon the challenge is to develop capacity of the tribal groups to increase the agriculture productivity in a sustainable manner, develop climate resilient agriculture practices, ensure food and livelihood security of the tribes. In this context, integrated landscape management through community participation build on traditional knowledge, innovations and bio-cultural diversity will complements the national commitments to international conventions. In India, several Government, especially Ministry of Tribal Affairs, and NGOs has been involved in evolving strategy to promote the participation of indigenous tribes through demonstrative models of sustainable agricultural production, including participatory biodiversity management, capacity building, and implementation through social action, monitoring and data documentation. Such capacity building programme is to improve the well-being of tribes across target landscape through raising awareness, training and skill development. Therefore, enhanced capacity of tribal people shall facilitate and speed up the process of transfer and adaptation of technology to improve the quality of life and wellbeing of the indigenous tribal community.
- Project will design and undertake specific capacity building programmes for tribal groups and local communities as they tend to have deeper understanding of local ecosystems and their dynamics, and thus play an important role in long-term monitoring of ecosystems which can help make better-informed management decisions contributing to biodiversity conservation and to carry out ecological restoration of degraded lands. Such programmes will also enable their active participation in scientific assessments, recognizing territorial rights and creating partnerships between scientists, implementing agencies (both public and private) and among tribal groups and local communities. They are part of a dedicated approach towards tribal peoples in order to “leave no one behind”, which constitutes the overarching principle of UNDP Social and Environmental Safeguards. All activities targeting and/or impacting tribal peoples will be compliant with the Social Inclusion Planning Framework.
- Capacity building programmes shall target through a series of processes including training need assessment of the tribal community of the given landscapes, designing training modules and materials and conduction of skill development training for the farmers, both men and women. Such capacity building programme shall also facilitate the forest communities to inculcate sustainable harvesting and collection practices, as well as introducing to them the concept of forest regeneration, modern agro-techniques and crop diversification for doubling farmer’s income. Farmers will also be trained in organic cultivation for safe crop production to increase the value of their crops and ultimately enhance their income and prevent soil and water contamination. Indicative activities under Output 1.5 include:

Activity 1.5.1: Assess, identify and develop capacity building programme for tribal people on sustainable land-use planning and identification of SLM options to balance gains and losses of productive land.

Activity 1.5.2: Identify champion tribal farmers, using FPIC approach, to be trained in better understanding of principle of LDN and implementation of related activities across the target districts.

Activity 1.5.3: Develop database of roster of experts and undertake capacity building and awareness programmes of tribal communities across the target districts to carry out specialised training modules.

Activity 1.5.4: Organise trainers training programmes.

Activity 1.5.5: Organise farmers' exchange visits for sharing learning experiences and exchange of traditional knowledge across target project sites and beyond.

COMPONENT 2. IMPLEMENTING AND UP-SCALING LANDSCAPE-WIDE INTEGRATED SUSTAINABLE ECOSYSTEM MANAGEMENT PRACTICES TO AVOID, REDUCE AND REVERSE DEGRADED PRODUCTION LANDSCAPES

- Key deliverables for Component 2 are as follows:
- Improved land management (agriculture, grassland and forest) covering 317,000 ha including:
  - ✓ Area of land restored – 108,000 ha, which include 76,000 ha of degraded agricultural land, and 32,000 ha of degraded natural grass and shrublands.
  - ✓ Area of landscape under improved practices (excluding protected areas) – 209,000 ha, which include 114,000 ha of agricultural lands, 50,000 ha of grasslands and shrub and 45,000 ha of forests (33,000 ha of HCVF and 12,000 ha of production forest landscape).
- Around 637,745 tCO2eq sequestered or avoided over 20-year period due to direct project interventions.
- 180,000 direct beneficiaries (Male – 108,000; Female – 72,000) from improved agricultural, grassland management and forest loss avoidance.
- Diversified and green livelihood across all landscapes by engaging in various government schemes; and new and innovative financing mechanism established through SMEs, PPPs, small grants and ABS agreements, directly benefitting 2,000 (with 60:40 men/women beneficiaries) community members, especially women and youth, leading to 15% income enhancement.
- At least 6 (2 in each state) SLM resource management units established in partnership with ICAR-KVKs (Krishi Vigyan Kendra) and Van Vigyan Kendra (VVK) or Forest Science Centres (FSC) to demonstrate land restoration practices covering at least 50 villages across target 6 districts.
- 75 Self-help groups (SHGs) established with 50% women participation across target 6 districts.
- Diversified farm and forest landscapes through increase in species richness, both at inter- and intra-species level, conserving indigenous biodiversity of global significance.
- Climate smart agricultural practices adopted leading to increase in soil fertility, ground water rejuvenation and restoration of vegetation cover across degraded productive landscapes.
- Project outcomes upscaled in at least 5 new districts (both within target 3 States as well as other Sates, with similar agroclimatic conditions) through additional co-financing sourcing.

Outcome 2: Integrated participatory landscape design and financing models established in support of avoidance, reduction and reversal of land degradation, desertification, biodiversity loss and negative impacts of climate change to generates multiple sustained environmental and economic benefits.

- Identification, development and deployment of evidence-based SLM practices by practitioners and policymakers are essential to achieve LDN and targets of NDCs. Accordingly, under Component 2, and in line with the action strategies developed under Component 1 Outputs, GEF funding will support pilot actions in select sites of three target states (Gujarat, Karnataka and Maharashtra). Selection of these states was based on baseline information provided in the Desertification and Land Degradation Atlas of India (SAC, ISRO, 2021). Two districts from each of these three states were identified at PIF submission and *Taluka* level target project intervention sites were confirmed during the PPG phase, in consultation with state level partners during site visits (as detailed in **Annex 3**). Using the baseline information and as mentioned above, the project will mainly target three elements of degradation, viz., land use, process of degradation and severity level. The target landscape proposes to includes degraded agriculture irrigated, agriculture unirrigated, forest and plantation, grassland, grazing land, land with scrub, as well as to some extent restore water bodies and barren land. Selection criteria for identification of *Talukas* per district include: presence of water stressed districts/*Talukas*, land use systems with existing levels of land degradation, restoration opportunities, and support from local administration and other agencies engaged in complementary projects.
- Technical demonstrations to support adoption of economically, ecologically and socially sensitive climate resilient sustainable land management and energy efficient practices by relevant stakeholders across agricultural, grazing and forest lands; and successful on-the-ground restoration and rehabilitation of degraded areas will be main

contribution of Component 2. In this context, STAP's LDN guidelines are a valuable resource in the development of LDN demonstration interventions, which includes a necessary analysis of trade-offs and positive synergies and avoidance of indirect effects. Land degradation decision matrix to assist with localized land degradation assessments will be worked out under Output 2.1. Scaling of sustainable land management is central to Component 2 and the project will develop scaling pathway that defines how the project seeks to scale SLM and land restoration across sectors (e.g., agriculture, forestry, livestock, biodiversity) and spatial scales at landscape/district and also at state levels (Output 2.2.1, 2.2.2 and 2.2.3).

- Under this Outcome, the project will emplace learning strategies for state and district level agencies to design and implement a cohesive land use planning that targets SLM. This will include best international principles and practices relevant to each of the identified degradation drivers, gender inclusive and community participatory planning exercises, and evidence-based decision-making. The Outcome of project Component 2 will directly support relevant government agencies at both the national and target state levels to design and formally adopt land use plans contributing to the implementation of the LDN targets. These plans will be directed towards creating the enabling environment required to shift current production practices to climate smart production. Thus, GEF resources will help identify and design incentive mechanisms for land-users to adopt best climate smart and SLM practices, as well as for upscaling.
- The implementation process will involve close engagement with local communities to more clearly define precisely how best to ensure certain practices are adopted and that they endure for project sustainability. In addition, the strategic eco-restoration plan will provide a concrete program to facilitate decision-makers to track, monitor, and report on the results of funded activities to UNCCD. This will offer decision-makers with a clear understanding of what investments and actions work best to avoid, reduce, and reverse land degradation, increase climate change resilience and mitigation, and improve livelihood standards. This will also generate information and models that can then be sustained within each of the target areas and amplified through both Component 2 and Component 3 activities to increase sustainable production practices and reduce degradation at national and state levels.
- Importantly, efforts under this Component will also work to address issues related to financing that currently inhibit adoption of sustainable practices. This work will also address the value-chain side of the equation through improved marketing and other models through establishing SMEs and linkages to existing Farmers' Producer Organisations (FPOs) and Farmers' Producer Companies (FPCs), being supported by Government of India. The project will thus assist producers to access financing required to invest in value-addition practices. This will involve working with existing government financing programs to make certain they are strategically supporting production efforts designed to address degradation issues. The Outcome 2 will be addressed through the following four Outputs:

Output 2.1: Drivers of land degradation identified and participatory, inclusive and gender-responsive, landscape level eco-restoration plans developed for targeted landscapes.

- Project will undertake detailed GIS and remote sensing-based field studies together with Focal Group Discussion (FGD) to identify drivers of land degradation (land cover, land cover change, and land productivity trends) across target project sites, which will assist to prepare district and village ecosystem restoration plans. This will include identifying the primary degradation issues associated with sustainable management practices and integrating within the approved planning framework incentives to adopt sustainable alternatives. This will also include mapping and detailed assessment of production practices, productivity and profitability through improve agriculture, grassland and forest management and conservation-oriented production practices and relationship with LDN and SLM impacts. A key element of the plan will be to clarify and establish mechanisms to improve inter-sectoral coordination, investments, financial and resource mobilisation and technical support packages covering forest, pasture and agricultural lands. STAP's guidance on "Resilience Adaptation Pathways" and "Transformation Approach "on how to cope with uncertainty related to climate stresses and developing scenarios and sequencing alternative pathways will be considered when developing site-based eco-restoration plans.
- The project will provide technical assistance to local communities to develop and implement local level eco-restoration plans based on internationally recognized SLM principles and will focus upon improving local and traditional practices related to the use and conservation of land, water and biodiversity resources. This development will be in line with the Tribal People Planning Framework, follow the FPIC protocol, and will be conducted in full

compliance with both standard 6 (Indigenous Peoples) and standard 4 (cultural heritage), as per the ESMF. The project will support local CBOs/NGOs to conduct participatory resource assessments/surveys through techniques like Participatory Rural Appraisal and Planning (PRAP). These assessments will be used as the basis for participatory preparation of village-specific plans on the basis of best SLM practice principles, owned by the village community and endorsed by heads of local line departments. These village-level plans will be scaled-up to district level for implementation by the local authorities. The project will support the district Governments in decision-making process and efficient utilization of available land resources. Indicative activities under Output 2.1 include:

Activity 2.1.1: Undertake baseline survey to document site specific drivers of LD through HH survey and focal group discussion (FGD) at target landscape level.

Activity 2.1.2: Prepare GIS-based participatory district and village land use mapping to quantify status of LD (i.e., prevailing land degradation processes as well as data on land cover change, land productivity dynamics, and soil organic carbon), including:

- Assessment of the socio-economic conditions of the landscape
- Identify the areas of intervention according to the landscape mapped

Activity 2.1.3: Review and document existing evidence-based SLM innovative models, best practices and technologies available at national and international level that are suitable for each target landscape (agriculture, grassland and forest), through engaging with national and international experts, including:

- Social, environmental and financial threats, gaps, opportunities and challenges
- Analysis of land tenure systems in the different landscapes
- Analysis of asset ownership based on gender disaggregated data in the landscapes
- Identifying best practices on technologies to reduce the drudgery of women and children

Activity 2.1.4: Based on the results of the above activities, develop eco-restoration plans for targeted landscapes, on the basis of stakeholder consultations, that contribute to achievement of national LDN targets.

Output 2.2: Gender-responsive and inclusive improved alternative sustainable land and ecosystem management practices and appropriate technologies identified, demonstrated and upscaled, for enhancing resilience of local communities and restoration of targeted landscapes.

- A major emphasis of action under Output 2.2 will be to restore ecosystem functionality as a contribution to GEF Core Indicators: 3 (area of land restored), 4 (area of landscape under improved practices), and 6 (Greenhouse Gas Emissions mitigated). Process of land restoration priorities and practices will be fully identified in the land use planning process and finely tuned and applied through this Output. The project will work with producers and government agencies to apply principles and practices to show specifically how currently highly degraded agriculture, forest, and grazing lands can be restored to full ecosystem functionality. Evidence-based innovative practices and technologies will be identified and/or modified/developed and will support solutions for protection and restoration of high conservation value degraded agricultural, grassland and forest lands, including rejuvenating surface water bodies, that can be scaled up and scaled out to maximize global and national benefits for ecosystem health and local livelihoods.

- Developing sustainable approaches for forest protection and regeneration and/or avoided degradation will be through strengthening traditional forestry management systems and diversification of livelihood for forest dependent communities through Non-Timber Forest Products (NTFPs) and Non-Wood Forest Products (NWFPs) value chains, sustainable harvesting of medicinal and aromatic plants, and others. Diversity for Restoration (D4R) tool (http://www.restool.org/en/index.php), developed by the Alliance of Bioversity International and CIAT, will be applied, which helps in identifying appropriate species and seed sources for project sites to support achievement of desired restoration objectives (Box 14). The tool includes consideration of anticipated climate change impacts and includes information on the propagation of more than 300 tree species. In addition, SeedIT tool, which is a free mobile and desktop application, also developed by Alliance of Bioversity International and CIAT, will be promoted to enable easy and verifiable recording and identification of data on tree seed sources and seedlings. SeedIT allows users to collect and map the information of individual trees used for seed collection or planting.

Box 14. The restoration of degraded ecosystems is more than ever a global priority. Tree planting will make up a large share of the ambitious restoration commitments made by countries around the world, but careful planning is needed to select species and seed sources that are suitably adapted to present and future restoration site conditions and that meet the restoration objectives. The D4R tool integrates: (a) species habitat suitability maps under current and future climatic conditions; (b) analysis of functional trait data, local ecological knowledge and other species characteristics to score how well species match the restoration site conditions and restoration objectives; (c) optimization of species combinations and abundances considering functional trait diversity or phylogenetic diversity, to foster complementarity between species and to ensure ecosystem multifunctionality and stability; and (d) development of seed zone maps to guide sourcing of planting material adapted to present and predicted future environmental conditions.

- Approaches to protect and restore degraded farm land will include development/extension of climate resilient agriculture practices, development/ extension of agroforestry and integrated farming systems, development/extension of soil water conservation and watershed practices, selection/extension of crops and cropping systems for high yields, piloting of energy efficient and clean technologies in the Agri-sector, and maintenance and/or recovery of ecosystem functions and services. Whereas, actions for restoration of degraded pasture lands will include restoration of community grazing lands (*Gochars*) through grassland and rangeland development; silvi-pasture package of practices (species mix, efficient land and water management practices) and other support.
- Restoration areas will be prioritized based upon the location's potential to contribute to biodiversity conservation through sustainable land management use and subject to the communities' FPIC. Restoration will also be designed to limit incidences of human-wildlife conflict. Project will also target public and community owned water bodies across target sites for groundwater recharge and improvement in catchment areas of tank commands to facilitate irrigation for farm, forest and pasture lands through community participation. Actions such as moisture and aquifer recharge management will also be incorporated as a key component of preventing land degradation.
- The project will follow a community-based approach and be in line with the TPPF. Local communities in the target districts will be organized to make collective efforts towards overcoming the issues of land degradation and desertification. All project activities from planning to execution and aftercare will be managed with the active support of the local communities. Social organization of the community will be established at village level for which the project will establish or revive CBOs/NGOs in the project areas. The aspect of gender mainstreaming in promoting SLM will be given high priority. Decisions between the project and community will be through CBOs resolutions, documented in CBOs meeting minutes. The continued existence of the CBOs after completion of the project will ensure sustainability of the SLM activities in the future.
- UNDP's newly established India Accelerator Lab (https://www.undp.org/india/accelerator-lab-india), which is actively leveraging the power of grassroots innovations and new emerging technologies for addressing complex developmental challenges in India, has developed a strong partnership with (i) NITI Aayog to promote innovations at grassroots through policy advocacy efforts, (ii) Honeybee network "Grassroots Innovation Database (GRID)" have been developed with over 1400 grassroots innovations ready for deployment to benefit stakeholders in a wide range of sectors, and (iii) Department of Science and Technology, Government of India, 75 Community COVID Resilience Resource Centres has been established to deliver science, technology and innovation based interventions across

diverse regions of India. With support from UNDP's Accelerator Lab in collaboration with other international platforms for SLM and all relevant stakeholders, the project will mainstream improved alternative sustainable land management practices and technologies to validate their potential to accelerate development. In particular, support from the accelerator lab will be sought to test and validate causal links between social and environmental challenges and SLM. Sense-making, collective intelligence, solutions mapping, and experimentation will be part of a process designed to harness the potential of real time data to respond to rapidly evolving challenges facing land users and managers. Building on these locally sourced solutions, the labs will rapidly test and iterate new ideas to learn which one's work, which ones can grow, and which ones don't, bringing an applied experimental approach to the effort to achieve LDN and NDCs. Indicative activities under Output 2.2 include:

Activity 2.2.1: Based on the eco-restoration plans developed under 2.1.4, undertake gender-responsive field demonstrations for sustainable agricultural management practices across both irrigated and unirrigated farming systems; including enhance use of local crop diversity under organic farming practices and Zero Budget Natural Farming systems, together with water conservation practices (per drop more crop), and other climate smart agricultural practices, in line with Government priorities. This activity will also be supported through the following:

- Assessment of existing farming systems across target landscapes and identify gaps for SLM practices.
- Identify champion farmers, including women farmers, who are willing to participate to undertake SLM practices.
- Identify appropriate intervention models/approaches for SLM intervention for different agricultural landscapes. This may include farm diversification, both inter and intra species level, including climate smart crops; agro-horticulture systems; agro-forestry system, including precision agriculture, organic farming, Zero Budget Natural farming, intergraded pest management, system of rice intensification, suitable crop rotation practices, etc.
- Organise participatory workshop to educate the champion farmers for undertaking various SLM approaches suitable for their landscapes.
- Undertake on farm demonstration in participatory mode, using citizen science approach.
- Develop mobile app for document data and information sharing mechanisms among farmers and extension workers.
- Organise farmers field days, where farmers outside target landscape can also visit for cross learning.
- Undertake capacity building programmes for certified seed production and quality seeding raising of improved planting materials at village level and strengthen village seed system. This will enhance availability of seed/planting materials locally and at lower cost compared to market.
- Undertake farmers' awareness programme to better understand value chain and the role they can play to promote sustainable and climate-resilient food systems.
- Initiate participatory farmers groups, where farmers participate to discuss issues related to their farms together with professional advisors. This will help them to develop their farms and find new solutions for production and markets.
- Promote alternative uses of agricultural biomass such as crop residues, animal waste, food and processing waste and biproducts, leaves, straw, etc. This can increase the value and revenue of crop production, as well as provide new market opportunities that can feed back into value chain.
- Develop programmes to create consumer demand by producing material that provide education on the benefits of non-chemical farming and similar mass media outputs through various communication channels. This will not only enhance consumer awareness for adopting sustainable consumption practices, but also incentivise farmers to move in this direction.
- Plan and undertake activities for up-scaling and out-scaling of good practices, using crowdsourcing approach.
- Document and publish success stories as an outcome of project intervention.
- Publish scientific and popular articles.

Activity 2.2.2: Based on the eco-restoration plans developed under 2.1.4, undertake gender-responsive field demonstrations for sustainable pasture management practices, including investments in sustainable and climate

adaptive silviculture approaches and dairy production from integrated crop-livestock systems. This activity will also be supported through the following:

- Assessment of existing livestock production systems across target landscapes and identify gaps for SLM practices.
- Identify appropriate intervention models/approaches for SLM intervention for different grassland landscapes.
- Identification and introduction of superior varieties of native grass and range legume species.
- Identification and introduction of adaptive tree species for establishment and promotion of silvipasture systems in areas with low salinity.
- Adoption and upscaling appropriate technologies for strengthening fodder, water and resource management to make communities climate resilient such as reducing salinity by raised platforms and mounds, and preventing rainwater run-off to enter the treatment area by trenching and bunding.
- Upscaling and improving local traditional water harvesting systems like virda (local traditional dug-wells) and holiyo (water recharging through deep bore).
- Restoration of surface water bodies such as ponds through desilting, deepening, and rainwater harvesting
- Reduction in grazing pressure through improvement in grass/fodder production, encouraging stall feeding, implementing grazing cycle, etc.
- Develop and promote livestock-based value-added products and establishment of SMEs.
- Establishment of biodiversity parks representing native flora including an interpretation centre for documentation and awareness generation.
- Establishment of an eco-taskforce for Eco-restoration by engaging the local communities, especially youth.

Activity 2.2.3: Based on the eco-restoration plans developed under 2.1.4, undertake gender-responsive field demonstrations for sustainable forest management practices, including equitable access to forest resources, for restoration of forest land within the selected landscapes. In addition to activities proposed for improved grasslands, this activity will also be supported through the following:

- Promote Assisted Natural Regeneration (ANR) in the landscape through fencing to prevent encroachment and overgrazing, seeding, fire protection, etc.
- Improving species diversity in the landscape by leveraging tools such as Diversity for Restoration (D4R)
- Encourage the adoption and plantation of native tree species, including fruit plants, to improve soil nutrient content.
- Establish an Eco-taskforce for eco-restoration by engaging the local communities, especially youth to regenerate degraded forest through plantation drives.
- Promote cleaner energy options like electric *'chulhas'* to reduce dependence on fuelwood collection.
- Identify and support the implementation of measures such as check dams, bio-contour bunding, loose boulder structures, trenching, etc.
- Identify and promote long-term erosion control on unstable slopes and prevents surface erosion across diverse frest landscapes.

Activity 2.2.4: Support community-level participatory monitoring of eco-restoration plans, with training provided on M&E methods as needed.

Activity 2.2.5: Develop a replication plan for upscaling of best management practices in at least 5 new districts (both within the three target states as well as other states).

Output 2.3: Green, resilient and inclusive recovery strategies developed and demonstrated through sustainable and gender responsive livelihood options that reduce pressures on natural resources

- Like many other developing countries, India faces the challenge of managing the trade-off between economic growth and environment pressures. Green growth is one of the possible ways to sustain economic growth and development over the long-term. Small family farms and small and medium enterprises (SMEs) in the agri-food sector can contribute to eradicating poverty (SDG 1), achieving food and nutrition security (SDG 2), promoting inclusive growth

(SDG 8), protecting water, land and biodiversity (SDG 15), and achieving climate action (SDGs 13). Currently, many of them do not have sufficient access to finance to fulfil their potential.

- In this context, Output 2.3 will be aimed at supporting community-based environmental-friendly small enterprise and livelihood improvements using financial instruments to avoid biodiversity loss and promote sustainable land management. This will entail developing and facilitating the establishment of small and medium enterprises (SMEs) focused on agriculture, animal husbandry and forest products, at village and district level including organic farming, NTFP-based enterprises, community-based ecotourism, forest and wetland-based livelihoods and sustainable fisheries-related activities, etc. The SMEs will be screened through the Environmental and Social Impact Assessment and selected on the basis of environmental and social criteria as per the Environmental and Social Management Plan. A successful example is presented in **Box 15,** which initiatives will support by the project under this output.
- Through development of the comprehensive SLM policies for the three state governments and in alignment with NDC Goal 7, project will catalyse new policy commitments through an appropriate mix of investments (public, philanthropic, private) to support the sustainable landscape approach through undertaking business, policy and financial analyses; facilitate dialogue, and provide advisory input and strategic outreach based on good practices, cutting-edge technologies and innovative business models that advance green, resilient and inclusive recovery strategies to meet the commitments for LDN. This involves training and information on improving and developing gender-responsive value chains based on animal husbandry and land-based activities in the communities. It also involves training on new business models and identification of co-financing investments to expand the services of community farmers with natural or legal status (leading individual farmers, cooperatives, associations, women groups) in improving production quality, processing and increasing market access for small farms.
- The project will help local resource users (at village level) to design and implement realistic business-plans that help guide the incremental adoption of proven SLM practices and lessen the economic risks associated with poorly informed decision-making. As such, the project will guide communities in management of existing land resources in such a manner that regular Income is gained without depleting the capital resources. Project will also support the preparation of a database of environment-friendly enterprises that might be promising across landscapes in creating new and innovative value chain opportunities. To ensure that biological and other risks in terms of selected value chains are managed, an assessment will be undertaken for each proposed enterprise, including the value chain feasibility assessment, supply and demand, availability of raw materials and the feasibility of the intermediary processes, marketing and linkages with service providers.
- Capacity building and skills development for a selected number of small-scale community enterprises will support this effort. Development of backward and forward linkages with FPOs (Box 16) will be established to enhance smallholder access to public and private markets, and to pro-poor finance systems, link to technology-based market information platform such as E-NAM and *Jaivik Kheti* (organic farming) market portal for organic produce. Advocacy campaign will be launched for including support to environmentally oriented FPOs in the "Start-up India Mission" which aims to nurture youth and women entrepreneurs. The project will strengthen opportunities to mobilize funding through engagement of corporates and industries, through utilization and adoption of global and national best practices and innovative technological solutions for achievement of LDN. The feasibility of these enterprises, the interest of the community, capacity needs and availability of service providers was assessed at limited scale during the PPG stage and a number of suitable value chains have been identified, mainly focusing on milk-based industry in Kachchh, value-added products of neglected and underutilised crops and traditional varieties of food security crops in Banaskantha and Aurangabad, and fruit processing industries in Bagalkot. However, more detailed studies will be conducted during first year of project implementation. Indicative activities under Output 2.3 include:

Box 15. The 2022 report by IPCC highlighted the immediate need for climate adaptation and identified ecosystem-based adaptation that collaborates with local communities as one of the main approaches to achieve this. For India, the cultivation of homegrown millets, which are indigenous to local cultures and geographies, is a perfect example of an ecosystem-based approach. Indian Union Budget 2022 has called for special provisions for the support of post-harvest value addition and branding of millet products – a proposal that is well-timed and will help provide a road map for millets and move towards a sustainable agriculture policy. Millet cultivation has seen a revival in India recently, after rebranding of millets as "nutri-cereals". Subsequently, several initiatives have been undertaken in the last few years to promote millets. The Initiative for Nutritional Security through Intensive Millet Promotion (INSIMP), launched as part of the "*Rashtriya Krishi Vikas Yojana*" in 2012, provided an impetus to farmers through technology demonstrations, provision of inputs, financial assistance, and aid in post-harvest value addition. The scheme helped pave the way for the millet missions which were adopted by several states.

At the market and business front, an agricultural research institute has set up an incubation programme for "nutri-cereal" start-ups. The program provides technical consultancy and access to funding and infrastructure facilities to support business. This has helped improve consumer demand with the introduction of nearly 380 millet-based products in the market. At a more grassroots level, a non-profit that seeks to increase employment opportunities for poor women in rural areas, has been working in Kolli Hills, Tamil Nadu, for over three decades to promote traditional millet farming through women's collectives. It has supported more than 35 SHGs with around 390 members, of which 214 are women, to institutionalise various millet operations, including the millets value chain.

As for the intervention across the value chain of millets, a social enterprise that supports community-based natural food products, has connected more than 20,000 farmers and 20 artisanal producer organisations to bring premium food products to the market, including millet-based products. It has established a value chain of trust through its geo-tagged system to help track the origin of the products, and the "know your farmer" sticker on the products that helps take the farmer's story to the consumer.

Activity 2.3.1: Undertake a mapping of existing FPOs that are already engaged in value chains across project sites (108 in Gujarat, 195 in Karnataka and 1950 in Maharashtra), and provide training in the steps necessary to formalise and/or strengthen producer groups with management structures, roles, and negotiated by-laws and benefit distribution mechanisms.

Activity 2.3.2: Building on PPG stage assessment of suitable value chains, undertake feasibility studies for each proposed enterprise, including supply and demand, availability of raw materials and the feasibility of the intermediary processes, marketing and linkages with service providers.

Activity 2.3.3: Through FPOs and FPCs linkages, assist producers to develop business plans for the selected value chains based on review of existing value-added products, including market access for sustainable products (agriculture, livestock and forestry), marketing plans, and detailed budget analysis to make certain adopted practices remain profitable.

Activity 2.3.4: Develop and undertake training programs on value-chains enhancement and business management (e.g., marketing, processing, and certification) for local communities, extension services, farmers, women groups, and youth.

Output 2.4: Innovative and blended financing solutions demonstrated by fostering new strategic partnerships for implementation of the landscape level eco-restoration plans with enhanced resources towards achieving LDN.

- To achieve national commitments to LDN, large amounts of financial resources need to be mobilised, and public resources alone will not suffice. Blended finance is the strategic use of public or philanthropic development capital to mobilize additional external private commercial finance approach that helps enlarge the total amount of resources available to developing countries, including India. Attracting long-term capital, ideas and innovations from the private sector by creating a sound market-driven investment are needed, whereby large pools of capital can be mobilised to invest in profit-generating projects contributing to LDN. This help to fill their SDGs financing gap, and support the implementation of the International Agreements. Different blended finance can enable Agri-SMEs to access more capital and targeted financial products to grow their businesses and their contribution to the 2030 Agenda. Such finance models, particularly through technical assistance and/or grants, can stimulate the creation of new markets and value chains around Agri-SMEs.

Box 16. Farmer Producer Organisation (FPO) is a generic name, which refers to farmer- producers' organization incorporated/ registered either under Part IXA of Companies Act or under Co-operative Societies Act of the concerned States and formed for the purpose of leveraging collectives through economies of scale in production and marketing of agricultural and allied sector. The concept behind Farmer Producer Organizations is that farmers, who are the producers of agricultural products, can form groups. The Government of India has approved and launched "Formation and Promotion of 10,000 FPOs till 2027-28.

- INR 6965 Crore for formation and promotion of 10,000 FPOs
- Farmers to get better access to quality inputs, technology, and credit facilities
- FPOs to be promoted under "one district one product" cluster
- Better marketing access through economics of sale, for better realization of income

- While blended finance offers more opportunities for sustainable and inclusive investments than conventional mechanisms and instruments do, they can achieve this only if enabling conditions unlock finance for smallholders and communities. Innovative and blended finance programmes should be designed with room to experiment, innovate and adjust. Close consultation with target groups enables insights into both supply and demand challenges associated with commercial finance. Local institutions, including financial institutions (local banks and microfinance institutions); governments and agri-food market players, are critical partners in developing and delivering on such finance solutions that can impact not only on individual transaction but also on market factors underlying investment risk. Indian Governments have the financial instruments to mobilise private finance for Agri-SMEs at hand, *via* aid agencies, or development finance institutions or multilateral development banks. However, these financing conduits are not well-informed and/or aligned towards a common SLM and LDN targets.

- Overall, an integrated approach is required to scale up finance for sustainable and inclusive landscapes. This includes analysing the best combinations of financial structures, mechanisms and instruments suitable for local situations, and identifying conditions that, if improved, would increase access to finance and the effectiveness of various innovative finance tools. Increasing financial inclusion will also require strengthening the enabling conditions that influence the impacts of financed practices.

- During field visits and discussions with local partners, it was observed that some private sectors and philanthropic organisations are already playing an increasingly important role in funding LDN-related initiatives and other environmental targets over the years, but needs more efforts to accelerate these efforts. Jain Irrigation Systems Limited (JISL), one of the project private partners identified during PIF stage, is already engaged across all three target states is supporting sustainable farming through technology for micro-irrigation/drip-irrigation and providing quality planting materials of tropical fruits and vegetables and their processing. Another opportunity identified during PPG stage is to engage with Tata Trust, who are actively engaged in two of the target states (Maharashtra and Karnataka) and supporting cohesive eco-system for effective civil society action, thereby positively impacting the lives of marginalised communities. Other possible private partners identified during PPG field visits include Lupin Foundation and Axis Bank Foundation, who are presently engaged in ecosystem restoration programmes in Nandurbar district of Maharashtra and are willing to expand their support to other target districts. Partnership with a philanthropy-driven conservation model for promoting production and consumption of tropical fruits in India for

the benefit of human and planet has also been established, who has established a Center for Fruitful Lands (CFL) – India, hosted by one of the international project partners, Alliance of Bioversity International and CIAT - a CGIAR institute.

- The project will continue working with such initiatives involving private entrepreneurs and businesses to devise unique partnerships with local communities to overcome the problem of land degradation and desertification, with condition that such projects shall benefit the local communities. A study will also be undertaken to explore and make recommendations for generating Payments for Ecosystem Services (PES). Indicative activities under Output 2.3 include:

Activity 2.4.1: Assess current and future financial needs to implement the eco-restoration plans and achieve LDN targets, and define a suite of financial incentives and disincentives for third parties (private enterprises, land owners, farmers, and others) for the sustenance of ecological benefits.

Activity 2.4.2: Identify and document possible sources of blended financing for scaling up of SLM to achieve LDN at national and state level, including improving access of producers to credit and/or investment opportunities supported by donors and financial institutions, with special efforts to identify women-specific support under budgets for gender equality.

Activity 2.4.3: Undertake case studies (at least one for each target states) to demonstrate benefits of Payments for Ecosystem Services (PES) together with improved livelihood.

Activity 2.4.4: Draft and implement a sustainable financing strategy for implementation of the eco-restoration plans in consultation with key stakeholders to scale up LDN.

Activity 2.4.5: Develop database of private players engaged in support SLM practices, both in country and globally.

COMPONENT 3. MONITORING SYSTEM FOR SLM AND LDN INDICATORS; GENDER MAINSTREAMING, KNOWLEDGE MANAGEMENT, EVALUATION AND PROJECT REPORTING, NATIONAL OUTREACH; AND SOUTH- SOUTH COOPERATION

- Key deliverables for Component 3 are as follows:
- Improved knowledge management system in place through effective monitoring of data gathered through the establishment of a real time dashboard detailing targeted interventions on water, soil and land restored using localized data, as well as mapping and assessment of existing government schemes on land degradation, and financial gap assessment data.
- Mainstreaming and strengthening institutionalization of SLM capacities within the Krishi Vigyan Kendra of ICAR and Biodiversity Resource Centres and outreach support for achieving LDN, NDCs and Biodiversity Targets at global and national level.
- District-level communication strategy operational in 6 districts for disseminating success stories/news /results in local languages leading to enhanced knowledge (25%) of participating grassroot stakeholders as measured by KAP (Knowledge, Attitude and Practices) surveys.
- Centre of Excellence for South-South Cooperation operational.
- Dissemination of at least 10 project best practices *via* community of practice, SLM and biodiversity knowledge platforms and grassroot outreach, including best practices on gender empowerment and women's leadership in SLM.
- Replication uptake of project best practices initiated in at least 5 additional districts, including both across and outside of the target states.

Outcome 3: **Improved capacity for LDN monitoring, assessment and reporting to UNCCD in support of LDN target setting and evaluation of capacities of partners; allowing government institutions and other agencies to better document, analyse and**

disseminate effective intervention strategies for restoring productive landscapes and replication of best practices at national and state level, and at international level through improved South-South cooperation, knowledge and adaptive management.

- Communication, education and public awareness are the key to mainstreaming agrobiodiversity for sustainable land management across sectors and implement priority actions with involvement of all stakeholders. This would also ensure that concerns of sustainable land management and ecosystem services are mainstreamed in decision making at all levels. In order to ensure awareness and enhance understanding among range of stakeholders, a communication strategy and awareness programmes, comprising of methods, tools and approaches for raising awareness of relevant stakeholders on SLM, biodiversity conservation and climate change mitigation are necessary to achieve LDN targets and will be developed under Component 3 of the project. Special action will be targeted towards youth, where youth interns including 50% of which would be women, will be trained. A web-based portal will be established at national level with pages for each state to ensure maximum coordination and sharing of information about the overall SLM programme. This will have access to all policies, plans, guidelines, technical documentation, as well as information on capacity building and events.
- Replication and uptake will also be supported by the development of partnerships and outreach to strengthen grassroots adoption of climate resilient SLM practices addressing country's commitments to LDN targets and support scaling up experiences under Component 2 and amplify them within and outside of target states. This will be facilitated through multi-media communications, outreach and social media to reach influential actors involved in food security and agricultural development initiatives; and will provide support for national participation in national and international meetings and conferences for cross-learning.
- Potential partnerships with people's movements/grassroots movements were better understood during project site visits during PPG phase. A more detailed exercise will be undertaken during initial phase of project implementation as a potential mechanism to amplify project reach and impact through outreach/social awareness-raising dialogues and extension support to recognize and empower local farmer leaders, including the role of women farmers as champions of sustainable land management. During the inception phase, the project will develop a monitoring and information systems for knowledge management and outreach plan documenting targeted research on impacts, trade-offs, costs-benefit analysis of restoration, and identifying incremental synergies. In addition to the formal training proposed under the previous Outputs, project will develop a strong knowledgebase and knowledge sharing mechanism among professionals and practitioners, and to ensure maximum outreach of the knowledge that has been gained.
- The project will support monitoring and evaluation under both Component 1 and Component 2 activities. Under Component 3, the data gathering, monitoring, and evaluation elements of the project will be consolidated to provide decision-makers at district, state and national levels with access to accurate and timely information required to inform decision-making. The project will design and implement a data gathering and information strategy within six months of inception, which will address challenges such as the current approaches for data collection and information management. This will be linked to project efforts under both Components 1 and 2 focused initially upon the project's six target districts. However, by project close, information gathering and management protocols will be scaled-up state level to facilitate much more effective and efficient availability of knowledge to inform decision-making.
- The project will establish an effective M&E system that adheres to GEF and UNDP requirements, enables effective evaluation of project progress and impact that is inclusive of the needs of women and opportunities to strengthen gender mainstreaming through project activities. Monitoring and evaluation plans will be developed and implemented to assess and manage social and environmental project impacts. The Outcome will be addressed through the following five Outputs:

Output 3.1: Information systems to document real-time data on impacts, trade-offs, costs-benefit analysis of restoration, and identifying incremental synergies through dashboard and web portal developed and institutionalized.

- The project will support the development of a centralized, publicly available national database system hosting LDN-related information to enhance the efficient and timely sharing (and reporting) of information between relevant

sectors and agencies both at national and state levels, as well as to regional and global levels. The strengthened national knowledge management framework will help to better inform decision-making and scale out successful SLM and LDN practices to other districts of the target states and probable to other districts of the country.

- Within the knowledge platform, the project will create a specific dashboard that is targeted towards government decision-makers. This will include information related to best practices, monitoring of SLM and LDN indicators, project updates, and other relevant information. The dashboard will also draw upon and help to consolidate information currently available from existing knowledge platforms in the country. The government dashboard will be designed and launched prior to the close of the project year one. It is envisioned that this dashboard will grow in sophistication throughout the project period and will be ready for complete hand-over to the MoEFCC by project close. In addition, field monitoring data will be complemented by remote sensing data collected at national and state level. This will be facilitated through capacity development using a variety of relevant tools and GIS-based systems that combine high-resolution imagery with a cloud-based architecture and user-friendly interface for monitoring. Indicative activities under Output 3.1 include:

Activity 3.1.1: Review current national LDN core indicators (land cover, land productivity and carbon stocks), assessment and monitoring systems, and tools and their utility at national and sub-national (state, district, municipality, community/village) levels in order to identify improvements/ standardisation, where required.

Activity 3.1.2: Develop and/or support digital knowledge platform(s) and focal node for storage, management and analysis of LD and LDN-related data, practices and lessons learned from the project to provide accurate and timely information to inform decision-making, focused on national and sub-national level data and linking to other relevant regional and global databases, where possible.

Activity 3.1.3: Establish a specific 'dashboard' within the LDN knowledge platform targeted at government decision-makers to facilitate ease of reporting under international requirements.

Activity 3.1.4: Update existing spatial planning/GIS-based systems/facilities, where necessary, to provide robust data and information management capacity to support the knowledge platform, and link with relevant international and regional databases and tools that can support national spatial analyses of land degradation.

Output 3.2: Knowledge sharing mechanism established, and decision support and management capacities of stakeholders in the principles of agroecological intensification enhanced.

- The project will build knowledge and skills of key stakeholder groups, from national to community level to be able to effectively assess and monitor LDN. Training programmes will include better understanding of LDN indicators, LDN baseline mapping, data quality standards and specifications, methodologies and tools for estimating and measuring LDN indicators, mechanisms for validation on the ground, and data analytics. Training will follow a 'training of trainers' approach so that capacity building can be multiplied up using crowdsourcing approach. Government line department staff at the state and district levels will participate in training covering global monitoring tools designed to support LDN assessment. This will include building capacities to identify and monitor land degradation trends, hot spots and degradation. Trained staff will then be responsible for making certain the knowledge platform is maintained with regular data and information updates provided.

- Local knowledge and scientific-based evidences related to land management and use will be documented and knowledge sharing and capacity building resource centres will be established at state and district level. Project's innovative practices, lessons and knowledge generated will be codified, documented and disseminated under this output that will contribute to learning and facilitate replication and scaling up in other parts of the country and beyond, through Center of Excellence for South-South, in terms of mainstreaming biodiversity and sustainable land use practices. Indicative activities under Output 3.2 include:

Activity 3.2.1: Develop knowledge sharing mechanism, including use of global monitoring tools.

Activity 3.2.2: Establish knowledge sharing platforms and undertake capacity building programmes for key stakeholder groups on LDN assessment and monitoring at landscape, national and international levels.

Activity 3.2.3: Operationalize national LDN monitoring and reporting system to guide LD and SLM assessment, monitoring and decision-making in the integrated land management process.

Activity 3.2.4: Develop and operationalize plan for the sustainability (financial, institutional and human capacity) of the LDN monitoring and reporting system at least one year prior to project close.

Output 3.3: Communication strategies, knowledge products and tools designed and developed for collation of good practices, rewarding innovation and dissemination of success stories and project results

- The project will supportsd the documentation and dissemination of knowledge on SLM and LDN approaches, tools, lessons learned and best practices. Project knowledge management, communications and outreach activities will be guided by a Knowledge Management and Communications Strategy (KMCS), supported by a project web-based knowledge management portal and innovative information-sharing program. The KMCS will make certain that all project knowledge, communication and awareness-raising activities are tailored to the target audience and consider the information needs and ambitions of women and tribal groups. State and district level LDN assessment, monitoring and reporting systems and tools, including LDN knowledge platform, will be developed and operationalize, with relevant reporting to national and global level. Overall, KMCS will set out a systematic knowledge management process to capture and communicate project results, impacts, lessons learned and best practices, addressing the needs of practitioners, decision-makers and local stakeholders, making use of both traditional and new communication media and networks.
- Project communication materials (culturally appropriate and in relevant local languages) will include various digital and printed knowledge products (e.g., publications, leaflets, journal articles, booklets, case studies, best practice documents, presentations and audio-visual materials), as well as social media content and an electronic project newsletter. Communication events with stakeholders may include on-farm demonstrations, local fairs, and radio programs, as well as national-level workshops and conferences. Outreach will include innovative tools such as smart-phone applications designed to engage and inform stakeholders at multiple levels (e.g., easily accessible to farmers and rural private producers), based upon best international practices. Once the baseline is established across each target district, district administration will continue monitoring process until best practices are identified and project reaches its completion. The final product (best practices, supporting knowledge and the lessons learned) will then be translated and disseminated. Indicative activities under Output 3.3 include:

Activities 3.3.1: Develop project communication materials, activities and events (including a final workshop) to inform multiple stakeholder audiences (from national to community levels) about project aims, progress and results, using the most appropriate means for the target audience, with a web-based platform for hosting and disseminating project-related communication materials, lessons learned and best practices from the project.

Activity 3.3.2: Develop a process framework for a two-way transfer of project information between the state/national and landscape/community levels. At the landscape level, it is likely that agriculture and forestry extension services will facilitate dissemination and outreach activities to stakeholders in each target landscape, but also feed results and experiences back into the knowledge management structure at the national level (through the PMU).

Activity 3.3.3: Develop and implement a gender-sensitive KMCS and associated financing plan to guide all project knowledge management, communication and outreach activities, with tailored knowledge management and communications plans for individual target landscapes and their respective districts/communities.

Activity 3.3.4: Design and deliver a training module on communication and outreach to develop the capacity of the Project Management Unit and key stakeholders to design and deliver effective social-media content.

Activity 3.3.5: Synthesise all project-generated knowledge acquired and publish in academic journals; fed to regional and global databases/knowledge platforms; and share widely through participation in national, regional and global events of relevance for knowledge management.

Output 3.4: Centre of Excellence on Sustainable Land Management strengthened under the overall guidance and support of MoEFCC to further South-South cooperation and international alliances to address UNCCD global agenda

- In order to further develop scientific approach and facilitate induction of technology to land degradation issues, India has decided to set up a "Centre of excellence on Sustainable Land Management under the overall guidance and support from MoEFCC (as announced by The Honourable Prime Minister of India, Shri Narendra Modi, while inaugurating the High-Level Segment of Conference of Parties to the UNCCD, on the 9th of September, 2019).
- With the overall vision to achieve land degradation neutrality, the mission of the Center of Excellence (CoE) shall be to develop scientific approaches and facilitate induction of technology, capacity building and knowledge sharing; networking among national and international institutions working on sustainable land management; identifying various sources of obtaining finance to implement projects/ schemes to achieve land degradation neutrality; providing technical support to the Ministry of Environment, Forest and Climate Change, Government of India and promoting South-South cooperation with various countries, under country bi-lateral and multi-later agreements. Center's key objectives includes: Remote Sensing (RS) and GIS based mapping, research on various land sectors, reporting to UNCCD on its indicators, networking with national and international stakeholders, training and capacity building, knowledge sharing and developing business models for funding.
- Accordingly, GEF funds allocation under Component 3 will also be contributing to facilitate the establishment of a Centre of Excellence for South-South cooperation for capacity building and dissemination of best practices for cross-learning through exposure visits, development of course curriculum and its implementation in coordination with international alliances and engagement and contributions to global knowledge platforms (e.g., participation in virtual and physical knowledge and learning events of Global Landscapes Forum and GEF Sustainable Forest Management drylands impact program), to address UNCCD global agenda. Indicative activities under Output 3.4 include:

Activity 3.4.1: Review activities and mandates of existing relevant national and international institutions actively engaged in capacity building for SLM and LDN targets, and suggest a model for effective setting up of a Center of Excellence for South-South cooperation.

Activity 3.4.2: Provide assistance to develop course curriculum and training modules in consultation with national and international experts and provide support for conducting training programmes.

Activity 3.4.3: Provide assistance in preparing international roster of experts and to provide necessary support for engaging international experts to undertake specific course modules, for which internal expertise is not available.

Activity 3.4.4: Provide support for linkages with other LDN initiative for effective South-South Cooperation.

Output 3.5: Project M&E system, incorporating gender mainstreaming and social and environmental safeguards, implemented for adaptive project management.

- Project M&E will contribute to the national LDN monitoring and reporting system, providing important information to help populate the national LDN platform. The project will develop and implement a detailed M&E framework inclusive of the Mid-Term Review (MTR) and Terminal Evaluation (TE) to support an adaptive, results-based management approach to improve the efficiency and effectiveness of project implementation and delivery of project results and impacts. The project M&E framework will be consistent with the overall M&E framework and learning program, and will generate and systematically document lessons learned that will contribute to the knowledge base on SLM approaches and practices and means to achieve LDN targets.
- The project will hire an M&E specialist within six months of project start. This person will work throughout the project implementation period to: (i) develop and oversee delivery of the M&E system; (ii) collect and collate information on progress in meeting targets and evaluate results; and (iii) lead on the identification of project best practices and lessons learned and the systematization of experiences, and the preparation of UNDP and GEF monitoring reports. In addition, the project's suite of experts will be expected to contribute to M&E processes, including the gathering of baseline information and elaboration of the initial values of the GEF core Indicators and selected LDN indicators

once demarcation of the target areas is finalised. He/she will work closely with the PMU safeguard officer in order to monitor ESMF implementation, as well as the subsequent ESMP measures.

- The MTR is considered particularly crucial, providing a vital opportunity for reviewing progress, identifying successes, shortfall, bottlenecks and any needs for re-alignment through adaptive management. A mid-term evaluation will be carried out with field visits to selected sites and consultation with local stakeholders and national project partners. A final evaluation will also be conducted and will include review of project reports, web-based information, and field visits to selected project sites, with recommendations for ensuring sustainability of Project outcomes and the LDN system. Lessons learnt and recommendations produced by the Terminal Evaluation will inform discussions on sustainability/durability of project results and impacts and future replication and scaling up initiatives. Both evaluations will be carried out by teams that include gender expertise. Indicative activities under Output 3.5 include:

Activity 3.5.1: Set up a national-level steering committee and a coordination committee at the targeted landscapes.

Activity 3.5.2: Set up national-level and landscape PMUs and make necessary arrangements for PMUs staff orientation and periodic trainings/off-site meetings for effective project management, operation and delivery, and to identify practical solutions to resolve issues and overcome barriers hindering project performance to support adaptive management.

Activity 3.5.3: Monitor achievement of project indicators as per the project results framework, including GEF-7 core indicators, and report on project's implementation progress through the mandatory annual PIR. Continuously monitor changes in all project risks and undertake adaptive management actions as needed.

Activity 3.5.4: Operationalization of the Environmental and Social Management Framework, development of the Environmental and Social Impact Assessment, Environmental and Social Management Plan and associated plans.

Activity 3.5.5: Undertake an MTR (Medium-Term Review) no later than project month 30 and a TE (Terminal Review) at least two months prior to close, disseminate results and deliver their respective management responses.

Activity 3.5.6: Develop and initiate implementation of a Sustainability Plan for the project, providing a practical framework for facilitating further progress towards achievement of longer-term outcomes and global environmental benefits, as outlined in the project Theory of Change.

Partnerships

- There are a number of other GEF-financed projects working on land degradation, agricultural system transformation and sustainable land management (table below) that would have a bearing upon the proposed project, offering lessons learned, best practices for replication and for knowledge transfer during implementation. To this end, the project management unit will maintain close coordination with these initiatives.

Table 3: Coordination with on-going Initiatives

Title	Focal Areas	Implementing Agency	GEF Agency
Transforming agricultural systems and strengthening local economies in high biodiversity areas of India through sustainable landscape management and public-private finance	Land Degradation, Biodiversity	MoEFCC; MoAFW	UNEP
Transforming Rice-Wheat Food Systems in India (FOLUR)	Climate Change, Biodiversity, Land Degradation	MoAFW	FAO
Transforming Indian Agriculture for Global Environmental Benefits and the Conservation of Critical Biodiversity and Forest Landscapes	Climate Change, Biodiversity, Land Degradation	MoAFW; MoEFCC	FAO

Integrated SLEM Approaches for Reducing Land Degradation and Desertification	Land Degradation	MoEFCC	World Bank
AVACLIM: Agro-ecology, Ensuring Food Security and Sustainable Livelihoods while Mitigating Climate Change and Restoring Land in Dryland Regions	Climate Change, Land Degradation	CARI	FAO
Building the Foundation for Forest Landscape Restoration at Scale	Land Degradation	MoEFCC; MoAFW	UNEP
Mainstreaming Agrobiodiversity Conservation and Utilization in Agricultural Sector to Ensure Ecosystem Services and Reduce Vulnerability	Biodiversity	Indian Council of Agricultural Research (ICAR); Bioversity International	UNEP

- In addition to on-going other GEF-financed projects, project will also take advantages of cross learning from other similar projects operated/under operation in India by GIZ India office: (i) WASCA (Water Security and Climate Adaptation in Rural India[15]), which aims towards improving rural water resource management with regard to enhance water security and climate adaptation at the national level and in four States namely Rajasthan, Madhya Pradesh, Uttar Pradesh and Tamil Nadu; (ii) Soil Protection and Rehabilitation of Degraded Soil for Food Security (ProSoil)[16], (iii) Climate Adaptation and Finance in Rural India (CAFRI)[17], (iv) Supporting agroecological transformation processes of India's agriculture and food systems[18] - transformative agroecological processes are strengthened to sustainable agro- and food systems on national and state level, and (v) Indo German Global Academy for Agro-ecological Research and Learning in the state of Andhra Pradesh, to enhance the scientific orientation and evidence in support of agroecology in India.
- project will also take advantage of working in partnership with key private sector entities, who are also engaged with project stakeholders relating to land degradation, agricultural system transformation and sustainable land management and will include following:
- Jain Irrigation Systems Ltd. (JISL) – Jain Irrigation will provide technology for micro-irrigation through on-farm demonstration across all project sites. The partners will be benefited through technology developed based on detailed study of inter–relationship among soil, water, crop, land terrain and related agro climatic conditions, a suitable and economically viable system, to deliver a measured quantity of water to each plant at regular intervals. This is to ensure that the plants do not suffer from stress or strain of less and over watering. Jain irrigation will also be engaged for supplying quality planting materials of suitable fruits, vegetables, agroforestry tree species, which will be grown under controlled conditions with micro-irrigation with fertigation which eliminates any possibilities of pest or disease incidence. JISL is also engaged in food processing of vegetables and fruits and market them internationally under their brand name "FarmFresh". It processes selected varieties of fruits and vegetables that are brought either through the contract farming systems of the company or directly from open market. Project will take advantage of developing a cooperative management system for production and marketing of fruits and vegetables with support of JISL.
- In addition to private partners, the project has also explored possibility of funding support from trust/foundation, and one such possibility is to partner with the "*Lakhpati Kisan Initiative*[19]" of Tata Trust - The Central India Initiative, one of the flagship initiatives of Tata Trusts, focuses on the tribal belts in central India. It strives to bring households irreversibly out of poverty with increased life choices. To propel this mission, Collectives for Integrated Livelihood Initiatives (CInI), a nodal agency of the Trusts, promotes various livelihood prototypes in agriculture, livestock and non-timber forest produce, and water resource development. The programme engages with 100,000 households in

[15] http://efaidnbmnnnibpcajpcglclefindmkaj/https://www.giz.de/de/downloads/giz2019-en-wasca-india.pdf

[16] https://www.giz.de/en/worldwide/32181.html

[17] https://www.giz.de/en/worldwide/87190.html

[18] https://snrd-asia.org/support-of-agroecological-transformation-processes-in-india/

[19] A Lakhpati Kisan is one who earns over Rs100,000 per annum from one acre of land (https://www.tatatrusts.org/our-work/livelihood/agriculture-practices/lakhpati-kisan-initiative)

45 districts across four states – Jharkhand, Odisha, Maharashtra and Gujarat. Our project partners in Nandurbar are already engaged with this programme and CInI is willing to provide and share experiences gained while working with their partners across the four states.

Co-financing source	Co-financing type	Co-financing amount (USD)	Included in project results?	Link to project outcomes
Ministry of Environment, Forest and Climate Change	In-Kind	1,600,000	Yes	**Contributions to project management:** Office space in the MoEFCC in New Delhi, and time of MoEFCC staff
	Grant	6,400,000	Yes	Funds to be accessed during project implementation to support local restoration priority actions in the project landscapes: **Central Funds contributing to Land Restoration: Sustainable Forest Management:** Intensification of Forest Management, Forest Invasive Species, Preparedness for Meeting challenge of Bamboo Flowering and improving Management of Bamboo Forests, Introduction of Modern Forest Fire Control Methods in India **Forest Restoration and Afforestation:** National Afforestation Programme, Green India Mission , Compensatory Afforestation Fund (CAMPA), Conservation and Restoration of Unique Vegetation & Ecosystems **Skills Development:** Green Skill Development Programme
State Government of Gujarat	In Kind	3,600,000	Yes	**Contributions to project management:** Office space and time of staff
	Grant	8,400,000	Yes	**Sustainable Forest Management:** Comprehensive Training on Forest Fire Management, Forest Development Fund Scheme - Compensatory Plantation, Sub-Mission on Agro Forestry, Banni Grassland Management Scheme **Forest Restoration and Afforestation:** Re-afforestation of degraded forests, Afforestation for Eco-Development, Eco-Restoration, Eco-Preservation, Conservation of nature reserves and monitoring of forestry schemes
State Government of Maharashtra	In Kind	3,600,000	Yes	**Contributions to project management:** Office space and time of staff
	Grant	8,400,000	Yes	**Sustainable Forest Management:** Comprehensive Training on Forest Fire Management, Forest Development Fund Scheme - Compensatory Plantation, **Sustainable Agriculture Management**: Sub-Mission on Agro Forestry, National Mission on Sustainable Agriculture, National Watershed Development Programme, Pradhan Mantri Krishi Sinchayee Yojana, Horticulture Development

				Forest Restoration and Afforestation: Re-afforestation of degraded forests, Afforestation for Eco-Development, Eco-Restoration, Eco-Preservation, Conservation of nature reserves and monitoring of forestry schemes
UNDP India	In Kind	250,000	No	UNDP projects on restoration in the project states: 1. Enhancing climate-resilience of India's coastal communities, supported by the Green Climate Fund 2. UNDP supported Biodiversity Finance Initiative
	Grant	1,750,000		
Jain Irrigation Systems Ltd.	In Kind	61,411	Yes	**Contributions to project activities:** Office space and time of staff towards preparing training modules and undertaking capacity building activities
	Grant	184,233	Yes	**Technology and innovation in project sites:** Sustainable agriculture and water management solutions such as micro-irrigation, piping systems and tissue culture solutions
Total = USD 34,245,644				

Risks

- The project's full risk register is included in **Annex 6** - UNDP Risk Register. The risk register includes both risks to the project that could undermine its success, along with potential mitigation measures and recommended risk owners who would be responsible to manage the risks during the project implementation phase.
- Social and environmental risks were assessed as part of the UNDP social and environmental screening procedure (SESP - see **Annex 5**) are also consolidated into the risk register (See **Annex 6**). SESP was finalised during project preparation, as required by UNDP's Social and Environmental Standards (SES). The SESP identified 8 risks for this project that could have potential negative impacts in the absence of safeguards, six (6) of these risks were rated as 'moderate' and two (2) as 'substantial'. The overall risk categorization for the project is '**Substantial**'.
- In accordance with UNDP's SES guidelines, an Environmental and Social Management Framework (ESMF) has been developed for this substantial risk project during the project preparation phase (**Annex 9a).** A Social Inclusion Planning Framework (SIPF – **Annex 9b**) as per UNDP SES Standard 6 has been completed during the PPG based on the Free, Prior, Informed Consent (FPIC) protocol undertaken. The purpose of this SIPF is to set out the requirements of UNDP SES Standard 6, organisational arrangements, and design criteria to be applied to subprojects or project components that are not yet defined and will be prepared during project implementation. It is the equivalent of the "Indigenous Peoples Planning Framework", as per UNDP SES policy.
- The ESMF sets out the additional safeguards measures that apply to the project during the inception phase, including but not limited to: (i) the completion of an environmental and social impact assessment (3 ESIAs for 3 landscapes) and a social and environmental strategic assessment (3 SESAs) to further assess potential risks and impacts associated with the project; and (ii) the development of an Environmental and Social Management Plan (3 ESMPs one per landscape) including identified management measures as required based on the results of ESIAs/SESAs. The ESMPs (one per Landscape, three in total) will provide a set of avoidance, mitigation, monitoring, and institutional measures – as well as actions needed to implement these measures – to achieve the desired social and environmental sustainability outcomes. Complementing what has already been identified in the ProDoc, the ESMPs will further identify project activities that cannot take place until the relevant mitigation measures are approved and

put in place. The measures will be adopted and integrated into the project activities, monitoring and reporting framework and budget, and captured in a revised SESP for each project. Specific management plans will be developed during the ESIAs/ESMPs phase, including but not limited to: (i) Livelihood Action Plans (LAP– one per landscape); and (ii) Social Inclusion Plans (SIP – one per landscape). These plans are currently conceived as sections of the ESMPs allowing for more background information and details on operational procedures, implementation steps for key measures related to the most substantial risks. The exact content of the ESMPs will be determined based on the findings of the ESIAs, and as required for SES compliance.

- The project includes key measures to ensure full, effective and meaningful participation and Free Prior Informed Consent (FPIC) through an ad hoc protocol to be used throughout the project to seek and obtain consent on any activity linked with the identified risks. Culturally appropriate consultation has been and will be continuously carried out with the objective of achieving agreement and FPIC is ensured on any matters that may affect—positively or negatively—the STs, SCs and OBCs' rights and interests, lands, territories, resources, traditional livelihoods, and/or tangible and intangible Cultural Heritage. The FPIC process has started during PPG and the consent to participate to the project activities was collected. The FPIC process' primary goal at the beginning of the project will be to confirm STs, SCs and OBCs' participation in the implementation of the pilot projects in the sites where these communities could be affected. If the indigenous communities decide not to confirm their participation in the Project, an eligibility process will be carried out to establish alternative pilot interventions that comply with the particularities of the pilot intervention and UNDP SES. The initiation of the FPIC process and its findings will also serve to update this Social Inclusion Planning Framework to convert it into comprehensive SIPs. The SIPs will be carried out in a participatory manner, it will be developed based on a complete analysis about potential social and environmental impacts to the indigenous communities, and will include appropriate management measures to address them.
- The table below provides an overview of the required social and environmental safeguards elements to be designed in the first six months of project implementation. Substantial Risk activities – highlighted in the SESP – will not start before appropriate Management Plans are in place.

Environmental and social elements	**Description**
Environmental and Social Impact Assessment (ESIA)	In accordance with UNDP's SES policy, high-risk projects require comprehensive forms of assessment. An ESIA assesses the full range of social and environmental impacts, including alternatives analysis. It will be developed and carried out by independent experts in a participatory manner with stakeholders during the inception phase. The ESIA will further identify and assess social and environmental impacts of the project and its area of influence; evaluate alternatives; and design appropriate avoidance, mitigation, management, and monitoring measures. It will address all relevant issues related to the SES Overarching Principles and Project-level Standards. **(3 ESIAs: 1 per landscape)**
Strategic Social and Environmental Assessments (SESA)	SESA will be necessary in order to design the land use frameworks and the eco-restoration plans. This SESA will build on the SIPF in order to work together with the communities and tribal peoples representatives in a participatory-based approach, and ensure their rights and interests are included in the policies and plans. **(3 SESAs - one each for agriculture, grassland and forest)**
Environmental and Social Management Plans (ESMP)	A key output of the ESIA is an ESMP, prepared within the first six months of project implementation, to further refine risk identification and mitigation strategies, as well as to establish a system for monitoring these risks. Based on the findings, required management plans (e.g. SIP) will be developed and implemented as appropriate. **(3 ESMPs – 1 per landscape]**
Development of specific plans	In order to address specific high risks, the project's ESMP will be complemented by: • Livelihood Action Plan (LAP) **[3 LAPs - 1 per landscape]** • Social Inclusion Peoples Plan (SIP) **[3 SIPs– 1 per landscape]**
Operationalization of a Grievance Redress Mechanism (GRM)	The full details of the GRM will be agreed upon during the ESIA phase and the project will establish a project-level GRM at the start of implementation. Interested stakeholders

	may raise a grievance at any time with the Project Management Office, the government party, UNDP, or the GEF.
Operationalization of the Gender Action Plan	A Gender Action Plan has been developed during the project's design phase. It will guide all actions pertaining to SES implementation and gender-mainstreaming. It offers specific activities, from capacity-building to specific consultation activities, allowing all women to fully engage with the project and decision-making processes.
Operationalization of the Social Inclusion Planning Framework and development of an associated FPIC protocol	The SIPF will guide all actions pertaining to SES implementation. The FPIC protocol has been applied to each activity of the project, as communities will be allowed to provide their consent to part of them, ask for modifications, or withdraw their consent.

- As outlined in the climate and disaster risk screening (see **Annex 14**), hazard levels associated with flooding, water scarcity, extreme weather conditions are high in some of the project landscapes and potential short-term incidents and long-term consequences would affect local beneficiaries. In the state of Gujarat - in terms of climate hazards, Banas Kantha bears a high risk for water scarcity, extreme heat, and wild fire; and a medium risk for earthquake[20]. Kachchh bears a high risk for coastal floods, cyclone, water scarcity, extreme heat, and wild fire; and a medium risk for river flood, earthquake, tsunami[21]. In Maharashtra - Nandurbar bears a high risk for extreme heat, and wild fire; and a medium risk for earthquake, landslide, cyclone, water scarcity[22]. Aurangabad bears a high risk for extreme heat, and wild fire; and a medium risk for earthquake, cyclone, water scarcity[23]. In Karnataka - Kodagu bears a high risk for land slide, cyclone, wild fire; and a medium risk for earthquake, water scarcity, extreme heat[24]. Bagalkot bears a high risk for river flood, cyclone, extreme heat, and wild fire; and a medium risk for urban flood, earthquake, water scarcity[25]. The project's measures to develop land use frameworks at state and district levels, and eco-restoration plans at landscape levels, coupled with related capacity building, training-of-trainers, and demonstration of climate smart practices in production lands (agriculture, pasture, forest) will help reduce climate risks.

Stakeholder engagement and south-south cooperation

- To ensure inclusive participation, a wide range of stakeholders have been and will be engaged in the implementation of the project across all six target sites. During the Project's PPG Phase, guidelines were developed describing the types of stakeholders and actors that the project should ideally engage. Based on this guideline, the executing agency together with national partners, undertook extensive site visits, stakeholder consultations with potential partners and related institutions to explore roles and inputs and ways of creating added value and synergies. These include relevant state planning and development departments and line departments, research organisations, extension agencies, NGOs, Community Based Organizations (CBOs), local communities (farmers, livestock herders, forest communities), private sector and the donor community. During the PPG site visits, it was observed that several NGOs and Community-Based Organizations (CBOs) also operate on the ground and have been active in creating awareness among local communities on land degradation and desertification and providing assistance for various SLM-related initiatives. Over the years some of these NGO's have acquired considerable experience and skills of working in the rural environment and are particularly specialized in fields such as community organization, capacity building and promoting networking among many organizations working at the grass-roots level. Because of this consideration, some of these organizations could also be involved in the field implementation of project interventions in the respective target districts.

[20] Data from https://thinkhazard.org/en/report/17637-india-gujarat-banas-kantha
[21] Date from https://thinkhazard.org/en/report/17643-india-gujarat-kachchh
[22] Data from https://thinkhazard.org/en/report/70185-india-maharashtra-nandurbar
[23] Data from https://thinkhazard.org/en/report/17786-india-maharashtra-aurangabad
[24] Data from https://thinkhazard.org/en/report/17689-india-karnataka-kodagu
[25] Data from https://thinkhazard.org/en/report/70157-india-karnataka-bagalkot

- The proposed project follows a cross-sectoral and participatory approach, requiring involvement of different stakeholders in implementation at national, state, district and local levels. A comprehensive stakeholder engagement plan defining roles and responsibilities of the project partners was defined during PPG and will include: a mechanism for effective coordination among different stakeholders; a strategy for mobilization of local communities and their involvement in preparation and implementation of site-specific land use plans; a mechanism for providing technical assistance to the local communities through line agencies, district governments, and contracted NGOs for implementation of SLM interventions; a system for participatory monitoring and evaluation of the impact of the project activities; a complete road map for stakeholders' participation in project activities based on what, how, who, when and where, as well as sustainability and affordability; and a mechanism for involvement of local groups of both men and women for participatory resource assessments and identification of local priorities. A detailed description of the major institutions identified for the implementation of various project activities can be found in **Annex 8** - Stakeholder Engagement Plan of this project document.
- In addition, to bring the voice of India to global and regional fora, the project will explore opportunities for discourse on SLM to achieve LDN targets. The project will furthermore provide opportunities for south-south and triangular cooperation with countries that are implementing initiatives on LDN in geopolitical, social and environmental contexts relevant to the proposed project in India. Project will look for opportunities for replication in other countries, and to facilitate dissemination through global ongoing South-South and global platforms, such as a global knowledge sharing and partnership-brokering platform – South-South Galaxy [26] and PANORAMA[27]. The project will also strengthen capacity building of partners engaged in LDN in other developing countries. This will be achieved through providing support for the establishment and sustainable functioning of "Center of Excellence", which Government of India has announced during CoP 14 of the UNCCD, held during 2019 in India.

Gender equality and Women's Empowerment

- Land degradation is gendered and closely tied to gender biases in land rights, access to resources and incentives, opportunities to participate in decision-making, and the distribution of costs/benefits of projects targeting land improvement. Given the prevalent patriarchal socio-cultural norms, practices, and attitudes in the project landscapes, women and girls continue to be on the margins. Additionally, because of historical and intersecting forms of discrimination based on gender with caste, class, religion, age, ability and sexuality, certain groups of women like those from Dalit communities, other schedule castes and schedule tribes, ethnic and linguistic minorities, single and or widowed women experience further compounded discrimination and exclusion in these areas. Women are uniquely and differentially affected due to their substantial role in agriculture and food production, their reliance on forests, their greater vulnerability to poverty, and their typically weaker legal protections and social status. In project landscapes, women work longer hours than men when accounting for paid productive and unpaid reproductive, domestic or care responsibilities. They continue to shoulder most of the unpaid and undervalued work, such as collecting water, cooking, cleaning, and caretaking, all while battling the impacts of climate change, unpredictable rainfall, natural disasters, and non-yielding gardens.
- Given that the discourse and actions on gender and LDN are at a nascent stage in India as well as in the project landscapes, the project will adopt an incremental approach to design, implement and monitor gender focused activities. Its gender mainstreaming strategy recognizes the differential gender needs, priorities, the division of labour and access to knowledge, use of and control over resources by women and men as well as other diverse genders. It focuses on moving away from just numeric equality to achieving objectives that are anchored in promoting substantive equality thereby prioritising not just equality of inputs but of opportunities and outcomes.
- Throughout the project duration and across all pathways, the project includes specific gender-responsive measures tailored to the local context to address gender gaps and promote gender equality and women's empowerment. It adopts a multi-tiered, socio-ecological approach to address gender inequality, focusing interventions at individual, family, community, and systemic/institutional levels.
- Recognizing the alarming lack of gender disaggregated data on LDN as a major gap, the project includes interventions on strengthening data systems to net gender disaggregated data to inform policy and programme formulation,

[26] https://www.southsouth-galaxy.org
[27] https://panorama.solutions/en

including grassroots level planning on LDN through local governance institutions such as the Panchayats. It includes strengthening women's community collectives e.g., Self Help Groups (SHGs), thereby improving their bargaining power. It integrates women's economic empowerment in the implementation of activities to eradicate their extreme poverty and advocate for improving their access to, control over and use of natural resources and assets, particularly land for women from marginalized communities. This is accompanied by efforts to transform prevalent gender-discriminatory norms, behaviours, and attitudes, particularly on women's greater burden of care work at home, including through engaging with men and boys as allies and partners in SLM/LDN.

- Improving capacities of women is a key component of the project as this would contribute to the objectives of this project in increasing investments in the long-term sustainability and productivity of land, as well as specifically the incomes of women and female-headed households. The project will emphasize the access of women to land in the development of land use plans, which will strengthen the organization of women in informal groups, associations, and cooperatives to strengthen their market access, position in value chains and control over revenues from agriculture, agroforestry, and trade (Component 1). Particular emphasis on the roles, rights and entitlement of women will also be included in policy and institutional framework under Component 1. Women groups will be closely involved in all activities relating to SLM and restoration of degraded agriculture, grassland and forest landscapes across target sites (Component 2); guidelines provided under "Gender and Inclusion Toolbox: Participatory Research in Climate Change and Agriculture " of the CGIAR-CCAFS program[28] (an in-depth, ready-to-use guide for researchers and development practitioners to help uncover important gender and social differences in rural communities); as well as the UNDP/FAO "Toolkit for value chain analysis and market development integrating climate resilience and gender responsiveness[29]" will be used for assessing the specific role and problems of women at the beginning of interventions and streamline activities with the specific local needs, during full project implementation. Where appropriate according to those initial assessments and prioritized by the women groups themselves, specific value chains will be developed or strengthened for women groups and cooperatives.

Innovativeness, Sustainability and Potential for Scaling Up

- The project provides many opportunities to pilot and develop innovative approaches to addressing global environmental problems, particularly those involving smallholders and rural communities, as well as opportunities and potential for scaling up and sustainability.

Innovation:

- Project strategies are based on a novel approach of multi-stakeholder engagement and stewardship that have not been adequately applied before in India for sustainable land management and combating land degradation and desertification. This innovation will focus on strengthening the governance and financial viability at national and state level to demonstrate application of SLM practices towards enhancing the ecological condition of the target landscapes. This will be achieved through: (i) promoting a community-based approach towards the protection and management of the ecosystems; (ii) empowering local resource users to manage the available resources through co-management arrangements, where local communities are empowered to take responsibility for managing their respective landscapes; (iii) design and promoting an alternative conservation-oriented natural resource-based economy within and around the target landscape and testing sustainable financing mechanisms, with emphasis on private sector partnerships with local communities; and (iv) establishment of a participatory monitoring framework that will cover both its management and ecological status.

- The project will engage communities in achieving LDN and NDCs by empowering community-level institutions as well as governmental stakeholders from different administrative levels (States, districts) and institutional mandates (see Section above on baseline projects for key institutions) that are directly or indirectly involved in achieving LDN and NDCs but which in many cases work within institutional silos. In addition, with support from UNDP's newly established India Accelerator Lab (**Box 17**.) in collaboration with other international platforms for SLM and all relevant stakeholders, the project will mainstream improved alternative sustainable land management practices and technologies to validate their potential to accelerate development.

[28] https://ccafs.cgiar.org/resources/tools/gender-and-inclusion-toolbox
[29] https://www.fao.org/documents/card/ru/c/cb0699en/

- This approach will likely ensure that there is increased equity and self-determination, likelihood of sustainability, appropriateness of conservation and management initiatives, sense of local ownership and likelihood of success. The project will provide technical support, best practices, extension support and facilitate partnerships between community institutions and government and private sector partners.

Sustainability:

- The project has been designed to promote social, environmental and economic sustainability. Environmental and social sustainability are main objectives of the project, and were assessed through the Social and Environmental Screening Procedure. Environmental and Social Safeguard risks are further addressed in the ESMF. Socially, the project will increase access of a large number of farmers to extension/information services and best practices, empowering them to make decisions about the land use planning and implementation of SLM/CSA practices. The project strengthens the capacities of organizations, including cooperatives and producer associations with the training of their field agents as facilitators (at least 35% women) and youth on SLM/CSA practices and synergies with biodiversity, storage of organic carbon, rational use of water and its importance to improve local livelihoods.
- Economically, the project will promote the beneficiaries´ access to innovative financing mechanisms to adopt/replicate SLM/CSA practices for key crop production systems and livestock systems as well as it will provide assistance to improve the productive capacity of the land, as well as advice, information and guidance that will help integrate sustainable food value chains, so as to strengthen business capacity in the areas of implementation and consequently increase income of the beneficiaries. As such, it will generate new and innovative approaches to multi-sector land use planning based on testing activities of MoAFW and MoEFCC and opportunities for scaling up best practices will also be explored in the context of India's sharing of experiences with other countries and UNCCD, through strengthening "Center of Excellence". The joint efforts of GoI, UNCCD and the Global Mechanism will make the know-how and financial tools available to countries in need of such support.

Box 17. The Accelerator Labs are UNDP's new way of working in development:

The Accelerator Labs aim to challenge the status-quo and traditional ways of working to do development differently. Globally, 60 labs serving 78 countries to find radical solutions to today's wicked development challenges to:

- Address the intersection of complex social and environmental challenges.
- Explore strategic partnership and new business models.
- Conduct quick experiments based on testable hypothesis leading to faster learning.
- Promote a portfolio approach, co-creation, collective intelligence, multiplier effect.

- Extensive multi-stakeholder participation through district and area-wide platforms will further support sustainability by helping to create multiple institutional champions. In order to ensure long-term sustainability, the up-scaling SLM program envisages supporting collaboration and linkages between the State Planning and Development Departments under the overall coordination of the national Desertification cell of the MoEFCC. A provision has been made to establish dedicated units in partnership with the Krishi Vigyan Kendras (KVKs) of ICAR (Box 18) for promoting SLM practices towards the end of the 1st year of the project implementation so that the units are fully embedded in the system and are able to run effectively after the close of the programme.
- Capacity building is a major thrust of the project, so both short-term and long-term plans to strengthen technical expertise and capability for all involved, have been recommended. Capacity building of government staff and others is expected to be institutionalized and continued after the project. Securing the institutional sustainability of the project's impacts will be promoted by developing the technical capacities at relevant levels, in all the participating institutions. The capacity building activities, networking and continuous field-level presence by the management agencies (state, private and civil society) will help achieve social sustainability of the project. The build-up of trust through dialogues and stakeholder consultations, and stakeholder mobilization through capacity building by the project will assist in achieving this long-term objective.

- The strong focus on building local knowledge, capacities and incentives and ensuring gender equity are expected to lead to social sustainability. Finally, efforts to demonstrate the cost effectiveness of investments (particularly in prevention) and the viability of different SLM techniques and technology-based energy efficient solutions will provide an economic logic in support of sustainability and facilitate enhanced State government adoption and investment in providing incentives for SLM including transitionary support for smallholder farmers to adopt improved land management practices. The financial sustainability of the project's impacts will be further assured by the project's focus on a business-based approach to SLM. The ideal situation is to develop the business aspect of the project into activities so that in the long-term, these same activities will become self-supporting and independent of external funding.

Box 18. Krishi Vigyan Kendras (KVKs) are agricultural extension arm of the ICAR at district level [over 675 KVKs are functional in the country (https://kvk.icar.gov.in/)] acting as a bridge between ICAR and farmers in disseminating state of the art technologies, knowledge and new developments in agriculture to farmers with a multi-disciplinary approach.

Scaling up:

- The project has been designed to ensure that its actions can be widely replicated within India. The governance, capacity building, monitoring and financial strengthening of the target district level landscapes (agriculture, grassland and forest) achieved and demonstrated during the lifetime of this proposed project, including the adoption of standards, protocols and tools, will benefit other landscapes within the state as well as in other states of India. The cost-effectiveness, as well as institutional, social and environmental sustainability factors mentioned above is expected to contribute to the replication of the project's approaches. In addition, the project will ensure that activities, impacts and lessons learnt are recorded and disseminated widely within the country (and internationally through GEF and UNDP knowledge management mechanisms[30]) to generate a bottom-up demand for similar activities throughout the country. The involvement of NGOs and the private sector in the project activities are also expected to lead to further replication of the project's actions in India. One of the strongest mechanisms for wider replication of the project's activities nationally will be through the incorporation of SLM consideration in the development of participatory community development plans through '*Gram Panchayat*' development programme. GEF support under Component 2 is focused on demonstrating technical solutions to achieving LDN and NDCs within select pilot districts of the three states (Gujarat, Karnataka and Maharashtra). Project success will therefore require a careful, ongoing process of lesson learning and scaling up, to ensure that the hopefully positive aspects across the demonstration landscape of selected districts can be quickly taken up by remaining districts, as well as to other states. The role of district-level platforms in this regard will be critical. In addition, Component 3 is focused on using knowledge exchange and outreach to facilitate wide replication and uptake of SLM and climate mitigation practices. All of the knowledge and experience gained, lessons learned, training modules, templates for management planning and monitoring, management plans and associated monitoring data, legal and regulatory provisions will be readily accessible on a web-based information system with GIS capabilities.
- Through support of the Centre of Excellence, the project will be able to draw on pre-existing experiences in order to amplify and accelerate their uptake. This will focus on supporting replication across India with some targeted South-South Cooperation in thematic areas relevant to the project, e.g., knowledge exchange across drylands systems. The project will also seek to engage and contribute to existing SLM/restoration global knowledge platforms (e.g., webinars, virtual learning events, contribution of best practices and technical studies to knowledge databases) to help replicate project best practices and approaches in other dryland systems. Replication across India will also be supported by the use of grassroots champions and people's movement partnerships to help build a groundswell of farmer support for SLM and restoration and climate mitigation, offering further project impact and land under improved management practices.
- The Project's investment component will seek to develop synergies among rural development and private sector actors and programs with an objective of raising additional investments that will fund and expand models of ecosystem conservation and resource use and alternative livelihood activities within and outside of the targeted landscapes. Additionally, the PMU will work with the MoEFCC, MoAFW and local governments to identify sources

[30] www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.48.07.Rev_.01_KM_Approach_Paper.pdf

of government and private sector funding, micro-capital grants and self-help groups to initiate and promote replication in other districts (at least 5 districts).

V. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): 1, 5, 13, 15 and 17				
Strategic Plan Outcome: #3 Resilience built to systemic uncertainty and risk.				
This project will contribute to the following country outcome (UNDAF/CPD, RPD, GPD): By 2027, Government of India, state governments, communities, private sector and other actors take informed actions to address climate change, pollution, biodiversity loss and restore ecological integrity through improved knowledge, capacity and mainstreaming of				
	Objective and Outcome Indicators **(no more than a total of 20 indicators)**	**Baseline**[31] *Must be determined during PPG phase*	**Mid-term Target**[32] *Expected level of progress before MTR process starts*	**End of Project Target** *Expected level when terminal evaluation undertaken*
Project Objective:	To achieve land degradation neutrality (LDN) through sustainable ecosystem-based management and restoration of degraded landscapes across agricultural, forest, pastoral lands and surface water bodies.			
	Indicator 1 *(GEF Core Indicator 11):* Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment (individual people)[33]	0	55,000 [Female: 17,000 & Male: 38,000]	180,000 [Female: 72,000 & Male: 108,000
	Indicator 2 *(GEF Core Indicator 3):* Area of land restored	0	30% of the EOP targets	108,000 ha degraded land restored
	Indicator 3 *(GEF Core Indicator 4):* Area of landscape under improved practices (excluding protected areas)	0	75,000 ha under improved practices	209,000 ha under improved practices
	Indicator 4 *(GEF Core Indicator 6.1):* Carbon sequestered or emissions avoided over 20-years due to direct project interventions in the AFOLU sector	0	20% of the EOP target	6,793,648 tCO2eq sequestered or avoided over 20 years due to direct project interventions
Project component 1	Enabling institutional, strategic frameworks and policies for integrated sustainable land management (SLM) practices and restoration of degraded production landscapes			
Outcome[34] **1:** Enhanced national, state and district-level enabling frameworks incentivizing SLM practices and supporting participatory multi-sector platforms to avoid, reduce and reverse land degradation,	**Indicator 5:** Number of government development schemes at district level that have mainstreamed complementary measures for SLM and restoration of degraded landscape.	0	5	5
	Indicator 6: Number of persons trained as trainers to further build capacities of different stakeholder groups	0	475 Through organisation of 22 training programmes) [Female – 265 & Male -210]	700 (through organisation of 35 training programmes) [Female -335 & Male -365]

[31] *Baseline, mid-term and end of project target levels must be expressed in the same neutral unit of analysis as the corresponding indicator. Baseline is the current/original status or condition and needs to be quantified. The baseline can be zero when appropriate given the project has not started. The baseline must be established before the project document is submitted to the GEF for final approval. The baseline values will be used to measure the success of the project through implementation monitoring and evaluation.*

[32] *Target is the change in the baseline value that will be achieved by the mid-term review and then again by the terminal evaluation.*

[33] Provide total number of all direct project beneficiaries expected to benefit from all project activities until project closure. Separate the total number by female and male. This indicator captures the number of individual people who receive targeted support from a given GEF project and/or who use the specific resources that the project maintains or enhances. Support is defined as direct assistance from the project. Direct beneficiaries are all individuals receiving targeted support from a given project. Targeted support is the intentional and direct assistance of a project to individuals or groups of individuals who are aware that they are receiving that support and/or who use the specific resources.

[34] *Outcomes are medium term results that the project makes a contribution towards, and that are designed to help achieve the longer-term objective. Achievement of outcomes will be influenced both by project outputs and additional factors that may be outside the direct control of the project.*

biodiversity loss and climate mitigation.	to achieve LDN targets (at least 40% women) - through organisation of 35 trainers-of training programmes.			
Outputs to achieve Outcome 1	1.1. National and state level gender-responsive and inclusive land use framework developed for restoring land degradation, conserving biodiversity and positive climate action. 1.2. Complementary cross-sectoral mainstreaming actions developed and demonstrated to enhance LDN, NDC and biodiversity outcomes in existing government schemes where agricultural, forestry and rangeland management practices underpin the livelihoods of poor rural farmers and pastoralists. 1.3. Multi-stakeholder platforms established and operationalized at national, state and landscape levels for integrating LDN in land-use planning frameworks. 1.4. Capacities of key stakeholders strengthened for carrying out transformative projects resulting in land restoration, climate change mitigation and biodiversity conservation. 1.5. Programs to enable participation of tribal groups, especially women, aimed at internalizing LDN implemented in relevant state in partnership with local agencies with State and District administration.			
Project component 2	Implementing and up-scaling landscape-wide integrated sustainable ecosystem management practices to avoid, reduce and reverse degraded production landscapes			
Outcome 2: Integrated participatory landscape design and financing models established in support of avoidance, reduction and reversal of land degradation, desertification, biodiversity loss and negative impacts of climate change to generates multiple sustained environmental and economic benefits.	**Indicator 7:** Number of SLM resource management units established to demonstrate land restoration practices	0 unit	3 units established (one in each state)	6 units established (two in each state)
	Indicator 8: Number of persons benefitting from diversified and green livelihood options, disaggregated by gender	0	500 [Female – 220 & Male – 280]	2000 [Female – 760 & Male – 1240]
	Indicator 9 (GEF CI 3.1 and 4.1): Area of degraded agricultural land restored and under sustainable management	0	36,000 ha of agriculture land under improved practices	190,000 ha 1) 76,000 ha of agriculture degraded land restored; 2) 114,000 ha of agriculture land
	Indicator 10 (GEF CI 3.2 & 4.2): Area of degraded grasslands restored and grassland landscape under sustainable management	0	22,000 ha of grassland under improved practices	82,000 ha 1) 32,000 ha of grassland degraded land restored; 2) 50,000 hectares of grassland
	Indicator 11 (GEF CI 4.3): Area of forest landscape under sustainable management	0	34,000 ha 1) 17,000 ha under improved practices; 2) 8,000 ha of productive forest landscape 3) 9,000 ha of High Conservation Value Forest (HCVF) landscape under improved practices	90,000 ha 1) 45,000 ha of forests land 2) 12,000 ha of productive forest landscape under improved practices 3) 33,000 ha of High Conservation Value Forest (HCVF) landscape under improved practices
Outputs to achieve Outcome 2	2.1. Drivers of land degradation identified and participatory, inclusive and gender-responsive, landscape level eco-restoration plans developed for targeted landscapes. 2.2. Gender-responsive and inclusive improved alternative sustainable land and ecosystem management practices and appropriate technologies identified, demonstrated and upscaled, for enhancing resilience of local communities and restoration of targeted landscapes. 2.3. Green, resilient and inclusive recovery strategies developed and demonstrated through sustainable and gender responsive livelihood options that reduce pressures on natural resources			

	2.4 Innovative and blended financing solutions demonstrated by fostering new strategic partnerships for implementation of the landscape level eco-restoration plans with enhanced resources towards achieving LDN.			
Project component 3	Monitoring system for SLM and LDN indicators; gender-mainstreaming, knowledge management, evaluation and project reporting, national outreach; and South-South cooperation			
Outcome 3.1: Improved capacity for LDN monitoring, assessment and reporting to UNCCD in support of LDN target setting and evaluation of capacities of partners; allowing government institutions and other agencies to better document, analyse and disseminate effective intervention strategies for restoring productive landscapes and replication of best practices at national and state level, and at international level through improved South-South cooperation, knowledge and adaptive management.	**Indicator 12:** Centre of Excellence for South-South Cooperation operational	0	1	1
	Indicator 13: Establishment of a real time dashboard detailing targeted interventions on water, soil and land restored using localized data, as well as mapping and assessment of existing government schemes on land degradation, and financial gap assessment data.	0	1	1
	Indicator 14: Increase in flow of knowledge and information on best practices, as measured by (a) the cumulative number of visits/downloads of knowledge products on Internet, project's website, and social media platforms, and (b) the number of people (gender disaggregated) reached through dissemination of knowledge products, participation in workshops; (c) number of knowledge products prepared and disseminated by the project.		a) 10,000 visits/downloads of knowledge products on Internet, project's website, and social media platforms, and (b) 10% of the total beneficiaries (of whom 50% are women) reached through dissemination of knowledge products, participation in workshops, etc; (c) at least 10 knowledge products	a) 20,000 visits/downloads of knowledge products on Internet, project's website, and social media platforms, and (b) at least 20% of the beneficiaries (of whom 50% are women) reached through dissemination of knowledge products, participation in workshops, etc.; (c) 20 knowledge products.
Outputs to achieve Outcome 3	Output 3.1.1. Information systems to document real-time data on impacts, trade-offs, costs-benefit analysis of restoration, and identifying incremental synergies through dashboard and web portal developed and institutionalized. Output 3.1.2. Knowledge sharing mechanism established, and decision support and management capacities of stakeholders in the principles of agroecological intensification enhanced. Output 3.1.3. Communication strategies, knowledge products and tools designed and developed for collation of good practices, rewarding innovation and dissemination of success stories and project results. Output 3.1.4. Centre of Excellence on Sustainable Land Management strengthened under the overall guidance and support of MoEFCC to further South-South cooperation and international alliances to address UNCCD global agenda. Output 3.1.5. Project M&E system, incorporating gender mainstreaming and social and environmental safeguards, implemented for adaptive project management.			

VI. MONITORING AND EVALUATION (M&E) PLAN

- Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP (including guidance on GEF project revisions) and UNDP Evaluation Policy **The UNDP Country Office is responsible for ensuring full compliance with all UNDP project M&E requirements including project monitoring, UNDP quality assurance requirements, quarterly risk management, and evaluation requirements.**
- Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF Monitoring Policy and the GEF Evaluation Policy and other relevant GEF policies[35]. The M&E plan and budget included below will guide the GEF-specific M&E activities to be undertaken by this project.
- In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed – including during the Project Inception Workshop - and will be detailed in the Inception Report

Minimum project monitoring and reporting requirements as required by the GEF:

Inception Workshop and Report: A project inception workshop will be held within 2 months from the First disbursement date, with the aim to:

a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.
b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
c. Review the results framework and monitoring plan.
d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.
e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework (where relevant) and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.
f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
g. Plan and schedule Project Board meetings and finalize the first-year annual work plan. Finalize the TOR of the Project Board.
h. Formally launch the Project.

GEF Project Implementation Report (PIR):

- The annual GEF PIR covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. UNDP will undertake quality assurance of the PIR before submission to the GEF. The PIR submitted to the GEF will be shared with the Project Board. UNDP will conduct a quality review of the PIR, and this quality review and feedback will be used to inform the preparation of the subsequent annual PIR..

GEF Core Indicators:

- The GEF Core indicators included as Annex 15 will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Note that the project team is responsible for updating the core indicators status. The updated monitoring data must be shared with MTR/TE consultants prior to required evaluation missions, so these can be used for subsequent groundtruthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF.

[35] See https://www.thegef.org/projects-operations/policies-guidelines

Independent Mid-term Review (MTR):

- An independent mid-term review (MTR) will be completed by the mid-point of the project. The terms of reference, the MTR process and the final MTR report will follow the standard templates and MTR guidance for UNDP-supported GEF-financed projects available on the UNDP Evaluation Resource Center. The MTR must be submitted to the GEF by the mid-point of the project but no later than 48 months after CEO Endorsement.

Provisions must be taken to complete and submit the MTR within the submission deadline. Therefore, the MTR process must start no later than 8 months before the expected date of submission of the MTR.

- The MTR will be 'independent, impartial and rigorous'. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be reviewed. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project under review.
- The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the MTR process. Additional quality assurance support is available from BPPS/NCE.
- The final MTR report will be publicly available in English and will be posted on the UNDP ERC by the MTR submission date included on cover page of this project document. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report's submission to GEF.

Terminal Evaluation (TE):

- An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and TE guidance for UNDP-supported GEF-financed projects available on the UNDP Evaluation Resource Center. TE must be submitted to the GEF no later than 6 months after the Completion Date. This is a hard deadline that, if not met, can only be extended through a formal extension request. To meet the submission deadline, final TE reports must be completed and submitted to BPPS NCE team no later than 2 months in advance of the deadline to allow sufficient time for internal review/clearance that is required prior to submission.

Provisions must be taken to complete and submit the TE within the submission deadline. Therefore, TE must start no later than 8 months before the expected date of submission of the TE (or 11 months prior to the estimated operational closure date).

- The evaluation will be 'independent, impartial and rigorous'. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.
- The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the terminal evaluation process. Additional quality assurance support is available from BPPS NCE.
- The final TE report will be publicly available in English and posted on the UNDPHY ERC by the TE submission date included on cover page of this project document. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report submission to the GEF.
- Per the GEF Terminal Evaluation requirements, for cancelled full-sized projects, Terminal Evaluations are required if the GEF grant expenditure exceeds more than US$ 2 million.

Final Report:

- The project's terminal GEF PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following and evaluation plans.

Monitoring Plan: The project results, corresponding indicators and mid-term and end-of-project targets in the project results framework will be monitored by the Project Management Unit annually, and will be reported in the GEF PIR every year, and will be evaluated periodically during project implementation. If baseline data for some of the results indicators is not yet available, it will be collected during the first year of project implementation. Project risks, as outlined in the risk register, will be monitored quarterly.

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
Project objectives: To achieve land degradation neutrality (LDN) through sustainable ecosystem-based management and restoration of degraded landscapes across agricultural, forest, pastoral lands and surface water bodies	**Indicator 1 (GEF Core Indicator 11):** Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment (individual people)	Midterm: 35,000 Female: 17,320 Male: 38,000 Project end: 178,000 Male: 106,760 Female: 71,240	The number of direct beneficiaries is estimated based on proposed outputs and their respective activities under Component 2 and also the amount of budget allocated for each of these outputs. This is also based on possible options identified during PPG site visits and consultation	Agricultural statistics report for target talukas, as well as information provided by district level administration.	Monitoring to achieve this target will be done prior to the MTR and TE	National and State level Project Management Units	Annual reports, Training workshop reports, Dashboard, Farmer surveys and interviews, Field observations project website, news items, scientific and popular articles	Assumption: • Equal interest of male and women community participation • Identification of suitable market oriented value-added products • Interest of consumers in buying new value-added products • Interest of traders in promoting the new products • Interest of private sectors in setting up SMEs Risks: • Socio-cultural barriers for

[36] Data collection methods should outline specific tools used to collect data and additional information as necessary to support monitoring. The PIR cannot be used as a source of verification.

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
			with local partners. The disaggregated data were estimated based on site specific socioeconomic culture and existing role of women in agricultural, pasture and livestock management and forest harvesting and their value addition and marketing.					women participation • Availability of gender sensitive practices and technologies • Expectations of lifestyle improvement not met
	Indicator 2 (GEF Core Indicator 3): Area of land restored	Mid-term target for this indicator is zero as it is not realistic to achieve restoration in 2.5 years. Project end targets are below: 108,000 ha degraded land restored	At least 108,000 ha of land restored based on discussions with key stakeholders, targeted sites visit, advice received from district level experts and commitment for co-	The data will be collected on yearly basis on land brough under SLM practices across all target landscapes. Source of such data will be individual farmer for agriculture landscapes, community and forest department for grassland and forest landscapes.	Initial estimates were made during PIF discussion and were further verified during PPG site visits. Monitoring to achieve this target will be done prior to the MTR and TE.	National and State level Project Management Units along with support from experts.	District level semi-annual project reports, PMU and other partner reports, dashboard, technical presentations during state and national meetings, publications,	Assumption: • Local communities are convinced that restoration of degraded land in their vicinities will ensure ecological security to them and they will participate in the restoration work • Important Line Departments

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
			financing support, and validation visits.	The State government departments will keep track of intervention across each project site and the project will facilitate to develop a strong data gathering and data documentation system at district level.			news items, Field observations, project website, Indian Government report to UNCCD, etc.	would deploy additional staff to implement target-oriented activities of the project • The State Forest Department and Technical Institutions would work in close collaboration for preparation of management framework • State government and district administration will own the project • Capacity enhanced efficiently and effectively by project with sustainable results • Improved practices adopted. Risks: • Natural disaster may affect the restoration work,

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
								• Inadequate coordination among various line departments • Availability, accessibility and affordability of appropriate technologies • Local communities' willingness to accept the SLM practices • Non-availability of financial resources to undertake restoration work as per schedule Climate risks
	Indicator 3 (GEF Core Indicator 4): Area of landscape under improved practices (excluding protected areas)	Midterm target: 75,000 ha under improved practices	At least 209,000 ha of land under improved practices (excluding protected areas) based on discussions with key stakeholders, targeted sites visit, advice	The data will be collected on yearly basis on land brough under SLM practices across all target landscapes. Source of such data will be individual farmer for agriculture landscapes, community and forest department	Initial estimates were made during PIF discussion and were further verified during PPG site visits. Monitoring to achieve this target will be done prior to	National and State level Project Management Units along with support from experts.	District level semi-annual project reports, PMU and other partner reports, dashboard, technical presentations during state and national meetings,	Assumption: • Local communities are convinced that restoration of degraded land in their vicinities will ensure ecological security to them and they will participate in the restoration work

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
			received from district level experts and commitment for co-financing support, and validation visits.	for grassland and forest landscapes. The State government departments will keep track of intervention across each project site and the project will facilitate to develop a strong data gathering and data documentation system at district level.	the MTR and TE.		publications, news items, Field observations, project website, Indian Government report to UNCCD, etc.	• Important Line Departments would deploy additional staff to implement target-oriented activities of the project • The State Forest Department and Technical Institutions would work in close collaboration for preparation of management framework • State government and district administration will own the project • Capacity enhanced efficiently and effectively by project with sustainable results • Improved practices adopted. Risks:

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
								• Natural disaster may affect the restoration work • Inadequate coordination among various line departments • Availability, accessibility and affordability of appropriate technologies • Local communities' willingness to accept the SLM practices • Non-availability of financial resources to undertake restoration work as per schedule • Climate risks
	Indicator 4 (GEF Core Indicator 6.1): Carbon sequestered or emissions avoided over 20 years due to direct project interventions in	Midterm: 2,458,275 tCO2eq Project end: 6,793,648 tCO2eq sequestered or avoided over 20 years due to direct project interventions	This indicator captures the tCO2eq sequestered or avoided over 20 years due to direct project interventions	The calculation uses the FAO ExACT tool (see Annex XVI for further details)	Monitoring to achieve this target will be done prior to the MTR and TE	National and State level Project Management Units along with support from national partners and experts.	Calculation of this estimate depends on the area of land restored and area under improved practices (previous 2 indicators).	Assumption: • Proper planning done with selection of right trees (forest fruit and agroforestry) and crop species under various farming systems and forest

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	the AFOLU sector						Therefore, the MoV used for this indicator will be the same as the above two.	management undertaken • Accurate methods for Carbon sequestered or emissions used and capacity of stakeholders in estimation and interpretation of results • Local communities are implementing partners understand that restoration of degraded land in their vicinities will ensure ecological security and improved livelihood Risks: Land restoration targets may not be met due to risks mentioned in Indicator 1 and 2
Project Outcome 1	**Indicator 5:** Number of government development schemes at	Midterm and project end targets: 5	The Government schemes were identified based on	This information will be collected based on information maintained by district	Annually	National and State level PMUs	Draft framework, annual reports, MoEFCC	Assumptions: • Different Government departments are

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	district level that have mainstreamed complementary measures for SLM and restoration of degraded landscape.		initial suggestions from MoEFCC and further narrow down based on review of various schemes during PPG.	administration during project implementation. Information sharing platform will be developed across each target district and the district level staff will be trained to gather, analyse and share such information on information sharing platform.			report to UNCCD	willing to cooperate • Implementing arrangements are in place by district administration Risks: Political willingness to mainstream the recommendation
	Indicator 6: Number of persons trained as trainers to further build capacities of different stakeholder groups to achieve LDN targets (at least 40% women) - through organisation of 35 trainers-of training programmes.	Midterm: 475 (through organisation of 22 training programmes) • Female = 265 • Male = 210 Project end: 700 (through organisation of 35 training programmes) Male = 365 Female = 335	Capacity building programmes for various stakeholders were identified during PPG consultation and the target numbers achieved based on number of training programmes, where it is expected that at least 20 participants will participate	The number of training programmes were estimated based on the need discussed during PPG site visits for each project stakeholder across target landscapes (agriculture, pasture and forest). PMU will keep record of all such training programmes on how many participants participated and also the course contains. For each training programme a complete training workshop report will	Annually	National and State level PMUs	Training programme reports, course curriculum, training modules, annual reports, information from project websites, and project database	Assumptions: • Interest by stakeholders in undertaking training courses • Availability of sufficient number of trainers of trannies Risks: • Unavailability of suitable resource persons / experts in the area of SLM • Insufficient numbers of willing women participants

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
			in each training programme. However, the final number will for each programme will vary based in available trainers for trainees	be prepared by PMU and will be documented. Such information will also be shared on project web site.				• Retaliation of trained staff for project implementation
Project Outcome 2	**Indicator 7:** Number of SLM resource management Units established to demonstrate land restoration practices	Midterm: 3 units established (one in each state) Project end: 6	In consultation with MoEFCC, it was proposed and agreed during the PIF submission that project will establish at least one resource management unit to demonstrate land restoration practices in partnership with ICAR-KVK.	Based on suggestions from MoEFCC, it was agreed to establish one such unit in each of the target district across the three selected states (Gujarat, Maharashtra and Karnataka). These SLM resource management units will be established in collaboration with ICAR-KVK and most of the grassroot training programmes for the benefits of farmers and communities as well as extension workers will be held by these centers.	Units will be set up during first year of the project implementation and their role and responsibilities will be monitored on annual basis	National and State level PMUs	Half yearly progress reports of each unit	Assumptions: • State and district administration is interested to set up multidisciplinary project implementation units • State and district administration provided required support, both in terms of manpower and financial resources for effective functioning of these units Risks: • Roles and responsibilities

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
				Both district administration and PMU will keep records of training programmes organised by these units.				are properly designed in alignment with government priorities • Changes in administrative setup do not have any impact on mandate and functioning of these units
	Indicator 8: Number of persons benefitting from diversified and green livelihood options, disaggregated by gender	Midterm: 500 • Female = 220 • Male = 280 Project end: 2000 Male = 1240 Female = 760	Various green livelihood options were identified based on project design and were further validated during the filed visits during PPG. The estimated gender disaggregated numbers were finalised during stakeholder consultation and individual discussion with project	Various green livelihood options were identified based on literature survey, consultation with partners and project outcome reports made available by national and international partners. The record for such options of livelihood will be kept by district administration as well as state PMU and national PMU.	Annually	National and State level PMUs	Project annual reports, number of SMEs established and functioning, number of value-added products available in markets, field visits and interview with farmers, scientific and popular articles, news and media publication, capacity building	Assumptions: • Interest of local communities to participate • Suitable technology and marketing options are feasible • Interest of private partners • Availability of Government funding support Risks: • Socio-cultural barriers for women participation • Availability of gender sensitive

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
			partners during PPG site visits as well as discussion with national partners				programme documents, etc.	practices and technologies • Expectations of lifestyle improvement not met
	Indicator 9 (GEF CI 3.1 and 4.1): Area of degraded agricultural land restored and under sustainable management	Mid-term: 36,000 ha of agriculture land under improved practices EOP: 190,000 ha 1) 76,000 ha of agriculture degraded land restored; 2) 114,000 ha of agriculture land						Ref. to Objective level Indicator 2 and 3
	Indicator 10 (GEF CI 3.2 & 4.2): Area of degraded grasslands restored and grassland landscape under sustainable management	MTR: 22,000 ha EOP: 82,000 ha 1) 32,000 ha of grassland degraded land restored; 2) 50,000 hectares of grassland						Ref. to Objective level indicator 2 & 3
	Indicator 11 (GEF CI 4.3): Area of forest	MTR: 34,000 ha EOP: 90,000 ha						Ref. to Objective level indicator 2 & 3

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	landscape under sustainable management	1) 45,000 ha of forests land 2) 12,000 ha of productive forest landscape under improved practices 3) 33,000 ha of High Conservation Value Forest (HCVF) landscape under improved practices						
Project Outcome 3	**Indicator 12:** Centre of Excellence for South-South Cooperation operational	Midterm and project end target is the same: 1	During CoP 14 of the UNCCD, The Indian Government announced to set-up a Center of Excellence to undertake capacity building programme with its strategic partners under its committed South-South Cooperation	As per advice of MoEFCC	Required support will be provided during first year of the project implementation for the establishment of centers core activities and further support will be provided on annual basis as and when required, especially in terms of developing course training modules, identifying and	National and State level PMUs in collaboration with MoEFCC and management staff of Center of excellence	Training Couse modules and participants database, annual reports of MoEFCC and Center of Excellence	Assumptions: • Interest of all stakeholders involved for successful operation of the center • Training course modules are relevant and are of interest to regional and global partners • Strategic partners are willing to participate in such training courses offered by the center Risks:

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
					supporting international experts, when such expertise is not available locally and providing linkages to similar training modules, both regionally and globally			• Alignment with government priorities • Insufficient funds availability
	Indicator 13: Establishment of a real time dashboard detailing targeted interventions on water, soil and land restored using localized data, as well as mapping and assessment of existing government schemes on land degradation, and financial	Midterm and project end target is the same: 1	National Dashboard to map and assess existing schemes, disseminate information related to LDN, and bring the benefits of the same to the key stakeholders	Data will be collected from various Ministries programmes, information made available from target states and districts, project outputs	Dashboard will be updated on regular basis during the life of the project and by the end of the project, the same will be handed over to MoEFCC	National and State level PMUs in collaboration with MoEFCC and other collaborative Ministries and project partners	Functional dashboard	Assumptions: • Availability of required information • Willingness of partner to share their information Risks: • Unwillingness of the key stakeholders to use the dashboard • Unwillingness of line departments to share the data for the dashboard

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[36]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	gap assessment data.							
	Indicator 14: Increase in flow of knowledge and information on best practices	MTR: a) 5,000 visits/downloads of knowledge products; (b) 10% of the total beneficiaries; (c) at least 10 knowledge products EOP: a) 20,000 visits/downloads; (b) at least 20% of the beneficiaries; (c) 20 knowledge products.		Project website/ UNDP website/govt website	Quarterly	PMU		

Monitoring and Evaluation Budget for project execution			
GEF M&E Requirements	**Responsible Parties**	**Indicative Cost (USD) - All in Outcome 3.2 of Component 3**	**Timeframe**
Inception workshop	Implementing Partner Project Manager	National level inception workshop = USD 20,000 (Y1)	Within 60 days of CEO endorsement of this project
Inception report	Project Manager	None	Within 90 days of CEO endorsement of this project
Reflections Meetings to review M&E and other data for adaptive management	Project Manager	None	Annually in preparation for the progress reports and development of the annual workplans
Monitoring of indicators in project results framework	Project Manager	USD 4,000/year= USD 20,000 (Y1-5)	Annually prior to GEF PIR excluding MTR and TE years (covered below). This will include GEF core indicators.
GEF Project Implementation Report	Project Manager UNDP Country Office	None	Annually typically between June-August
Monitoring all risks - ATLAS Risk Register	Project Manager UNDP Country Office	None	Ongoing
Monitoring of Safeguards according to UNDP SESP	Safeguards Specialist	USD 7,000/year for 4 years = USD 28,000 (Y1-4)	Ongoing
Supervision missions	Project Manager	USD 2,000/year = USD 10,000 (Y1-5)	Annually
Mid-term GEF Core Indicators	Project Manager	None	Before mid-term review mission takes place
Independent Mid-term Review (MTR)	Independent evaluators	USD 60,000 (Y3)	At mid-point of project implementation (31 July 2026)
Terminal GEF Core indicators and METT	Project Manager	None	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE)	Independent evaluators	USD 60,000 (Y5)	At least six (6) months before project closure (31 October 2028)
PSC meetings	Project Manager	None	Annually
	Total	**USD 198,000**	

VII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Section 1: General roles and responsibilities in the projects' governance mechanism

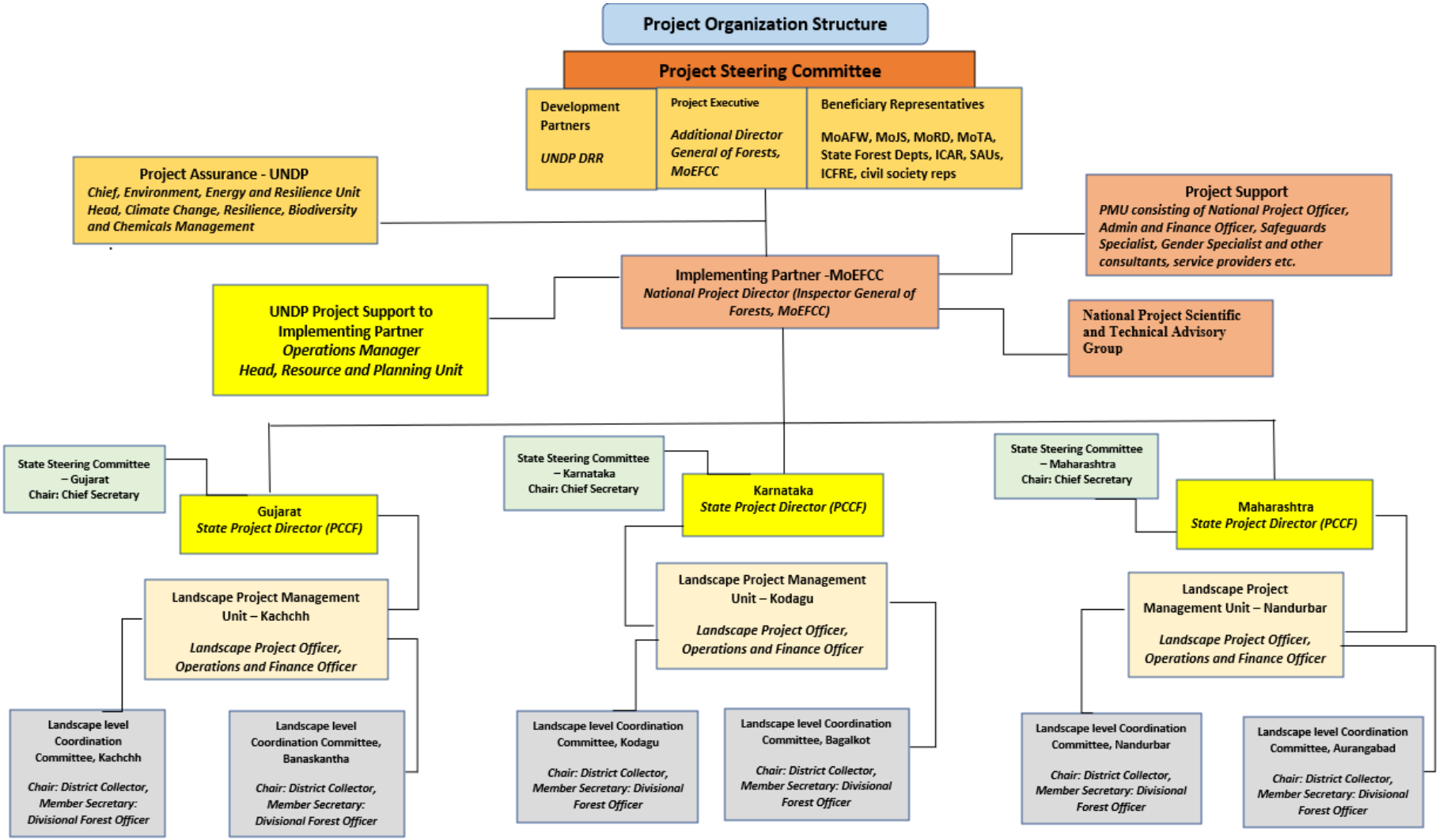
- Implementing Partner: The Implementing Partner for this project is the Ministry of Environment, Forest and Climate Change (MoEFCC).
- The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.
- The Implementing Partner is responsible for executing this project. Specific tasks include:
- Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
- Procurement of goods and services, including human resources.
- Financial management, including overseeing financial expenditures against project budgets.
- Approving and signing the multiyear workplan.
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.

- Responsible Parties: There are no Responsible Parties for the project.

Project stakeholders and target groups:

- The project involves a wide range of government and community stakeholders and spans the sectors of rural development, forest management, agriculture, and ecosystem restoration. Stakeholders also include those in central government, state government, tribal authorities, districts, block as and villages, as a result of this broad horizontal and vertical span of influence / interest, the governance and management arrangements are set up to facilitate involvement of a large number of stakeholders but are also designed for maximum efficiency.
- The project will facilitate establishment of landscape level, participatory, multi-stakeholder Sustainable Land Management platforms to enable the participation of wide range of stakeholders for planning, implementation and monitoring.
- UNDP: UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with UNDP and GEF policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project. **The UNDP GEF Executive Coordinator, in consultation with UNDP Bureaus and the Implementing Partner, retains the right to revoke the project DOA, suspend or cancel this GEF project.** UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings as a non-voting member.
- A firewall will be maintained between the delivery of project oversight and quality assurance performed by UNDP and charged to the GEF Fee and any support to project execution performed by UNDP (as requested by and agreed to by both the Implementing Partner and GEF) and may be charged to the GEF project management costs (only if approved by GEF). The segregation of functions and firewall provisions for UNDP in this case is described in the next section.

Section 2: Project governance structure



- Kachchh LMPU will cover Banaskantha, Kodagu LPMU will cover Bagalkot and Nandurbar LPMU will cover Aurangabad

First line of defense

- Person providing oversight of execution support (COS) cannot report to UNDP staff providing project assurance or providing programmatic oversight support to the RR

Second line of defense

- Regional Bureau oversees RR and function of UNDP compliance in project assurance.
- BPPS RTA oversees functions of technical oversight and GEF compliance in project assurance. BPPS NCE PTA oversees RTA function.
- UNDP GEF Executive Coordinator and Regional Bureau Deputy Director can revoke DOA/cancel/suspend project or provide enhanced oversight.

- The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.
- **UNDP project support***:* The Implementing Partner and GEF OFP have requested UNDP to provide support services in the amount of USD 64,117.82 for the full duration of the project, and the GEF has agreed for UNDP to provide such execution support services. Letter of support to request UNDP for execution support services has been issued by OFP (dated 4 January 2023). The execution support services – whether financed from the project budget or other sources - have been set out in detail and agreed between UNDP Country Office and the Implementing Partner in a Letter of Agreement (LOA). This LOA is attached to this Project Document.
- To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independent from the GEF-specific oversight and quality assurance services.

Section 3: Segregation of duties and firewalls vis-à-vis UNDP representation on the project board:

- As noted in the Minimum Fiduciary Standards for GEF Partner Agencies, in cases where a GEF Partner Agency (i.e. UNDP) carries out both implementation oversight and execution of a project, the GEF Partner Agency (i.e. UNDP) must separate its project implementation oversight and execution duties, and describe in the relevant project document a: 1) Satisfactory institutional arrangement for the separation of implementation oversight and executing functions in different departments of the GEF Partner Agency; and 2) Clear lines of responsibility, reporting and accountability within the GEF Partner Agency between the project implementation oversight and execution functions.
- In this case, UNDP's implementation oversight role in the project – as represented in the project board and via the project assurance function is performed by Deputy Resident Representative. UNDP's execution role in the project (as requested by the implementing partner) is performed by Operations Team of UNDP CO who will report to Resident Representative (see detail below).
- The provisions that have been taken to ensure that a proper separation of functions between staff providing oversight of the Implementing Partner executing the project and execution on behalf of the Implementing Partner is in place at the CO level:
- Assurance function:
    - Chief, Environment, Energy and Resilience Unit
    - Head, Climate Change, Resilience, Biodiversity and Chemicals Management

- Head, Resource and Planning Unit
- Execution support:
  - Head, Human Resource Unit
  - Procurement Analyst
- Execution oversight:
  - Operations Manager

Section 4: Roles and Responsiblities of the Project Organization Structure:

- **a) Project Board:** All UNDP projects must be governed by a multi-stakeholder board or committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project.

- The two main (mandatory) roles of the Project Board are as follows:

1) **High-level oversight of the execution of the project by the Implementing Partner, MoEFCC** (as explained in the "Provide Oversight" section of the POPP). This is the primary function of the project board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, evaluations, risk logs and the combined delivery report. The Project Boardis responsible for taking corrective action as needed to ensure the project achieves the desired results.
2) **Approval of strategic project execution decisions of the Implementing Partner** with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Implementing Partner (as explained in the "Manage Change" section of the POPP).

- Requirements to serve on the Project Board:

✓ Agree to the Terms of Reference of the Board and the rules on protocols, quorum and minuting.
✓ Meet annually; at least once.
✓ Disclose any conflict of interest in performing the functions of a Project Board member and take all measures to avoid any real or perceived conflicts of interest. This disclosure must be documented and kept on record by UNDP.
✓ Discharge the functions of the Project Board in accordance with UNDP policies and procedures.
✓ Ensure highest levels of transparency and ensure Project Board meeting minutes are recorded and shared with project stakeholders.

- Responsibilities of the Project Board:

a. Consensus decision making:
   - The project board provides overall guidance and direction to the project, ensuring it remains within any specified constraints, and providing overall oversight of the project implementation.
   - Review project performance based on monitoring, evaluation and reporting, including progress reports, risk logs and the combined delivery report;
   - The project board is responsible for making management decisions by consensus.
   - In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.
   - In case consensus cannot be reached within the Board, the UNDP representative on the board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.

b. Oversee project execution:
    - Agree on project manager's tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded.
    - Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.
    - Address any high-level project issues as raised by the project manager and project assurance;
    - Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS Nature, Climate and Energy Executive Coordinator (and the GEF, as required by GEF policies);
    - Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.
    - Track and monitor co-financed activities and realisation of co-financing amounts of this project.
    - Approve the Inception Report, GEF annual project implementation reports, mid-term review and terminal evaluation reports.
    - Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.
c. Risk Management:
    - Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.
    - Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project's area of influence that have implications for the project.
    - Address project-level grievances.
d. Coordination:
    - Ensure coordination between various donor and government-funded projects and programmes.
    - Ensure coordination with various government agencies and their participation in project activities.

- **Composition of the Project Board**: Given the cross-cutting nature of the project, the Project Board will have cross-sectoral representation led by MoEFCC, and will involve the Ministry of Rural Development, Ministry of Agriculture and Farmer's Welfare, Ministry of Jal Shakti, Ministry of Tribal Affairs. Other participants can be invited as and when required to enhance the efficacy of the Project Board meetings. The composition of the Project Board must include individuals assigned to the following three roles:

1. **Project Executive:** This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the project board with representatives of another category, it typically does so with a development partner representative. The Project Executive and Chair of the Project Board is Additional Director General of Forest, Ministry of Environment, Forest and Climate Change.

2. **Beneficiary Representative(s):** Individuals or groups representing the interests of those groups of stakeholders who will ultimately benefit from the project. Their primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. Often representatives from civil society, industry associations, or other government entities benefiting from the project can fulfil this role. There can be multiple beneficiary representatives in a Project Board. The Beneficiary representative (s) is/are:

    - Ministry of Agriculture and Farmer's Welfare (MoAFW)

- Ministry of Rural Development (MoRD)
- Ministry of Tribal Affairs (MoTA)
- Ministry of Jal Shakti (MoJS)
- Revenue and Forest Department, Government of Maharashtra
- Forest Department, Government of Gujarat
- Forest Department, Government of Karnataka
- State Agricultural Universities (SAUs)
- Indian Council of Agricultural Research (ICAR)
- Indian Council of Forest Research and Education (ICFRE)
- Civil society representatives (national level)

3. **Development Partner(s):** Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is UNDP Deputy Resident Representative (UNDP DRR)

- The National Steering Committee (Board) will be guided by the **National Project Scientific and Technical Advisory Group**. This Group will support the steering committee/board and will have members nominated by MoEFCC. The Group will steer the project and will ensure that best practice, science and technology inform the actions (and corrections that may be needed) throughout the project lifetime, to maximize expected benefits. The Group will report to the National Project Director, and will meet at least once a year.

- **b) Project Assurance:** Project assurance is the responsibility of each project board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

- A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function are:

    - Chief, Environment, Energy and Resilience Unit
    - Head, Climate Change, Resilience, and Chemicals Management

- **c) Project Management – Execution of the Project:** The Project Manager (PM) (also called project coordinator) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the board for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers.

- A designated representative of the PMU is expected to attend all board meetings and support board processes as a non-voting representative. The primary PMU representative attending board meetings is the Project Manager for the project (to be hired). The central Project Management Unit (PMU) will be located at the National Afforestation and Eco-development Board, Ministry of Environment, Forest and Climate Change (MoEFCC) in New Delhi, under the Inspector General of Forests, National Afforestation and Eco-development Board who is also the National Project Director for the project. The central PMU will consist of one national Project Officer/Manager, and one Procurement, Finance and Administrative Officer.

They will be supported by the safeguards and gender expertise to ensure project activities comply with UNDP's SES and gender policies and will also include other consultants to be hired by the project.

Sub-national Coordination Structures

- In addition to the Project Board for overall governance, and the central PMU and other nodes for project management, there are state steering committees (board) and landscape level coordination committees, as well as the landscape project management unit.

State Steering Committees (Board)

- To govern the project, a steering committee (board) at the state level, with the chairperson of Chief Secretary/Additional Chief Secretary will be formed. The state steering committee (board) will meet at least twice a year. This committee will be composed of - PCCF and a senior member from the Forest department (2); representatives from relevant line departments such as irrigation, revenue, agriculture, and rural development (4); and members from NGOs and research and development Institutions (2) and individual experts on restoration (2).

- key function of the committee will be to take policy decisions related to program implementation, finance, human resource, and operation of the project. The State Steering Committees (board) will support implementation and oversee annual work plans, progress, and budgets of the project in the state, provide guidance and ensure consistency, synergy and convergence of approaches with the other ongoing development projects and processes in the state, and support annual work-plan development and implementation. The steering committees (board) would also facilitate block, district, and sector agency participation in the landscape level planning operations at village level to ensure convergence of manpower and financial resources.

State Project Management Unit

- At the State level, project coordination will be the responsibility of the State Project Director, who is the Principal Chief Conservator of Forest (PCCF), a senior officer of the Forest Department in the project states of Gujarat, Karnataka and Maharashtra. He/she will provide coordination and convergence support for the project but will not be a full-time position.

Landscape level Coordination Committee

- The Landscape level Coordination Committee will be the district coordination mechanism and will be set up in– Kachchh and Banaskantha (in Gujarat), Nandurbar and Aurangabad (in Maharashtra) and Kodagu and Bagalkot (in Karnataka). The committee will meet at least twice a year to guide and coordinate project activities. The Committee will be chaired by the District Collector and the Divisional Forest Officer will be the Member Secretary. Institutions / organizations to be represented are proposed to include:

- District representatives of State Departments, for example:
  - Forestry Department
  - Agriculture and /or Horticulture Department
  - Tribal Welfare Department
  - Women's Development Corporation
  - Additional Director, Panchayat and District Rural Development Agency
- Block Development Officers from relevant blocks
- 1 representative from participating NGOs
- 1 representative each of Self-Help Group federations, Eco Development Committees/Village Forest Committees
- 2 Representatives of non-governmental organizations supporting local planning, land restoration, and livelihoods

- The Committee will enable convergence and synergy of other programs and activities of the different groups, and will support skills development, technology improvements, product development, marketing, product branding, linkages with financial institutions and other available government and non-government programs and resources, etc.

Landscape Project Management Unit

- At the landscape level, there will be a Landscape Project Management Unit (LPMU) comprising of Landscape Project Officers and Operations and Finance Officers. Operations and Finance Officers will be compensated through government co-finance funding. (Detailed TORs attached in **Annex 7**). The LPMU will be anchored in the offices of the District Administrations in Nandurbar district in Maharashtra. In Karnataka (Kodagu district) and Gujarat (Kachchh district), the project will be anchored in the forest department offices. The LPMU will be responsible for providing operation and coordination support to both districts in each state. GEF funding will finance interventions in the district where the LPMU will be anchored. In the other selected district, interventions would be supported through co-financing. The LPMU will visit this district two-three times in a month to ensure effective implementation of project activities.
- The LPMU will undertake planning and implementation of project activities in the landscapes, in consultation with the line departments and community-based organizations and will help to guide and coordinate activities in all three components of the project at state and landscape level.
- Site specific interventions and annual work plans (AWPs) would be executed through the well-established democratic institutions, i.e., Gram Sabhas (village councils) in close coordination with other community-based organizations such as Van Panchayat (VP), Krishi Vigyan Kendras (KVK), NABARD, Eco-development Committees (EDCs), Joint Forest management Committees (JFMCs), Women Self Help Groups (SHGSs), etc. as appropriate depending upon their compatibility and strengths. All livelihood and resource management planning would be coordinated through the LPMU under the supervision and guidance of Landscape level Coordination Committee, involving various stakeholders, United Nations Volunteers, and community mobilizers. Community level activities agreed through bottom-up planning process and as outlined in the AWP will then be funded and operationalized under this project.
- Role of NGOs, research and training Institutions, Individual experts, private institutions, line departments, financial institutions, cooperative institutions, and civil society organizations: A range of organizations and experts including private sector companies like Jain Irrigation will be engaged in the project to get specialized services for technical support; financial support; capacity building; R&D Services, value chain management, sub-projects implementations, etc. as needed. These institutions and experts will be engaged as specialized institutions for specific assignments or subprojects in their area of specialization. As per the requirement of the project, institutions will be engaged on contract basis with clear Terms of Reference for the tasks assigned to them.

VIII. FINANCIAL PLANNING AND MANAGEMENT

The total cost of the project is USD 40,845,644. This is financed through a GEF grant of USD 6,600,000 and additional support of USD 34,245,644. UNDP, as the GEF Implementing Agency, is responsible for the oversight of the GEF resources and the cash co-financing transferred to UNDP bank account only.

The actual realization of project co-financing will be monitored by the UNDP Country Office and the PMU on an annual basis in the GEF PIR and will be reported to the GEF during the mid-term review and terminal evaluation process as follows:

Co-financing source	**Co-financing type**	**Co-financing amount (USD)**	**Included in project results?**	**Link to project outcomes**
Ministry of Environment, Forest and Climate Change	In-Kind	1,600,000	Yes	**Contributions to project management:** Office space in the MoEFCC in New Delhi, and time of MoEFCC staff
	Grant	6,400,000	Yes	Funds to be accessed during project implementation to support local restoration priority actions in the project landscapes: **Central Funds contributing to Land Restoration:** **Sustainable Forest Management:** Intensification of Forest Management, Forest Invasive Species, Preparedness for Meeting challenge of Bamboo Flowering and improving Management of Bamboo Forests, Introduction of Modern Forest Fire Control Methods in India **Forest Restoration and Afforestation:** National Afforestation Programme, Green India Mission, Compensatory Afforestation Fund (CAMPA), Conservation and Restoration of Unique Vegetation & Ecosystems **Skills Development:** Green Skill Development Programme
State Government of Gujarat	In Kind	3,600,000	Yes	**Contributions to project management:** Office space and time of staff
	Grant	8,400,000	Yes	**Sustainable Forest Management:** Comprehensive Training on Forest Fire Management, Forest Development Fund Scheme - Compensatory Plantation, Sub-Mission on Agro Forestry, Banni Grassland Management Scheme **Forest Restoration and Afforestation:** Re-afforestation of degraded forests, Afforestation for Eco-Development, Eco-Restoration, Eco-Preservation,

				Conservation of nature reserves and monitoring of forestry schemes
State Government of Maharashtra	In Kind	3,600,000	Yes	**Contributions to project management:** Office space and time of staff
	Grant	8,400,000	Yes	**Sustainable Forest Management:** Comprehensive Training on Forest Fire Management, Forest Development Fund Scheme - Compensatory Plantation, **Sustainable Agriculture Management**: Sub-Mission on Agro Forestry, National Mission on Sustainable Agriculture, National Watershed Development Programme, Pradhan Mantri Krishi Sinchayee Yojana, Horticulture Development **Forest Restoration and Afforestation:** Re-afforestation of degraded forests, Afforestation for Eco-Development, Eco-Restoration, Eco-Preservation, Conservation of nature reserves and monitoring of forestry schemes
UNDP India	In Kind	250,000	No	UNDP projects on restoration in the project states: 1) Enhancing climate-resilience of India's coastal communities, supported by the Green Climate Fund 2) UNDP supported Biodiversity Finance Initiative
	Grant	1,750,000		
Jain Irrigation Systems Ltd.	In Kind	61,411	Yes	**Contributions to project activities:** Office space and time of staff towards preparing training modules and undertaking capacity building activities
	Grant	184,233	Yes	**Technology and innovation in project sites:** Sustainable agriculture and water management solutions such as micro-irrigation, piping systems and tissue culture solutions
Total = USD 34,245,644				

- **Budget Revision and Tolerance**: As per UNDP POPP, the project board may agree with the project manager on a tolerance level for each detailed plan under the overall multi-year workplan. The agreed tolerance should be written in the project document or approved project board meeting minutes. It should normally not exceed 10 percent of the agreed annual budget at the activity level, but within the overall approved multi-year workplan at the activity level. Within the agreed tolerances, the project manager can operate without intervention from the project board. Restrictions apply as follows:
- Should the following deviations occur, the Project Manager/IP through UNDP Country Office will seek the approval of the BPPS/NCE-VF team to ensure accurate reporting to the GEF. It is **strongly encouraged** to maintain the expenditures within the approved budget at the budgetary account and at the component level:

a) Budget reallocations must prove that the suggested changes in the budget will not lead to material changes in the results to be achieved by the project. A strong justification is required and will be approved on an exceptional basis. Budget re-allocations among the components (including PMC) of the approved Total Budget and Work Plans (TBWP) that represent a value greater than 10% of the total GEF grant.
b) Introduction of new outputs/activities (i.e., budget items) that were not part of the agreed project document and TBWP that represent a value greater than 5% of the total GEF grant. The new budget items must be eligible as per the GEF and UNDP policies.
c) Project management cost (PMC): budget under PMC component is capped and cannot be increased.

- UNDP is not in a position to increase the total budget above the amount approved by the donor, therefore any over-expenditure would have to be absorbed from non-GEF resources by the Implementing Partner (GEF Executing Entity)
- **Project extensions:** The UNDP-BPPS-NCE team Executive Coordinator must approve all requests for extension of the Project Completion Date and for other milestone extensions with hard deadlines. All extensions impose additional time and cost burdens at all levels and the GEF project budget cannot be increased beyond its originally approved amount. A single extension may be granted on an exceptional basis and subject to the conditions and maximum durations set out in the UNDP POPP. The project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs shall be covered by non-GEF resources; the additional UNDP oversight costs during the extension period must be covered by non-GEF resources, in accordance with UNDP's policy as set out in UNDP POPP
- For any extension request, UNDP CO and IP will consult and jointly present a clear plan indicating how and from which specific sources the additional oversight costs that will be incurred by UNDP will be covered during the extended period. The BPPS-NCE Executive Coordinator will consult the Regional Bureaux (RBX) and may reject the extension request if no (external co-financing by the IP or internal UNDP CO resources) can be identified..
- All extension requests, along with all supporting documentation, shall be submitted by the IP to the UNDP CO in line with the requirements and within the deadlines set out in the UNDP SOPs and policies in UNDP POPP.
- **Audit:** The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies. Audit cycle and process must be discussed during the Inception workshop. If the Implementing Partner is an UN Agency, the project will be audited according to that Agencies applicable audit policies.
- **Transfer or disposal of assets**: In consultation with the Implementing Partner and other parties of the project, UNDP is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project, however **must be done before the operational closure date**. In all cases of transfer, a transfer document must be prepared and kept on file[37]. The transfer should be done before Project Management Unit complete their assignments.
- **Completion Date**: The project completion date is the date of Project Document Signature plus project duration. This date can only be extended through a formal extension request. Prior to completion date, all UNDP-financed inputs must be provided and related activities for the Project completed. No activities, except for the final clearance of the Terminal Evaluation Report and the corresponding management response and the end-of-project review Project Board Meeting should take place after the Completion Date.
- **Project Closure:** Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP. All costs incurred to close the project must be included in the project closure budget and reported as final

[37] See https://popp.undp.org/ https://popp-prod.acquia.undp.org/policy-page/close-and-transition.

project commitments presented to the Project Board during the final project review. The only costs a project may incur following the final project review are those included in the project closure budget.

- **Operational Closure**: **Operational closure must happen within 9 months from project completion date.** Prior to operational closure, the Terminal Evaluation must have been submitted and the corresponding TE management response and the end-of-project review Project Board meeting must have been completed. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. Before Operational Closure, the project must have completed the transfer or disposal of any equipment that is still the property of UNDP.
- Financial Closure: Financial closure must happen within 6 months of operational closure or after the date of cancellation. The project will be financially closed when the following conditions have been met: a) the project is operationally completed or has been cancelled; b) the Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).

Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to BPPS/NCE for confirmation before the project will be financially closed in Quantum by the UNDP Country Office.

- **Cancellation and Suspension:** All projects considering going through cancellation or suspension must follow UNDP and GEF requirements. Guidance can be found in the UNDP POPP (SOPs for management actions of Vertical Fund projects escalated to the Executive Coordinator and Guidance for GEF project revisions).
- **Refund to GEF:** Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the BPPS/NCE team Directorate in New York. No action is required by the UNDP Country Office on the actual refund from UNDP project to the GEF. Unspent project balance is not permitted to be transferred to any other projects

IX. TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan			
Quantum Business Unit	UNDP-IND		
Quantum Project ID:	00130865	Quantum Project Title:	Sustainable management and restoration of degraded landscapes for achieving Land Degradation Neutrality (LDN) in India
Quantum Award ID:	00130865.1	Quantum Award Title:	Sustainable management and restoration of degraded landscapes for achieving Land Degradation Neutrality (LDN) in India
UNDP-GEF PIMS No.	6670		
Implementing Partner	Ministry of Environment, Forest and Climate Change (MoEFCC)		

Quantum Outcome (GEF Component)	**Quantum Output (GEF Outcome)**	**Quantum Activity (GEF Output)**	**Quantum Responsible Party**	**Quantum Fund ID**	**Quantum Donor ID**	**Quantum Budgetary Account Code**	**Quantum Budget Account Description**	**Amount Year *{2024}* (USD)**	**Amount Year *{2025}* (USD)**	**Amount Year {2026} (USD)**	**Amount Year {2027} (USD)**	**Amount Year {2028} (USD)**	**Total (USD)**	**See Budget Note:**
Component 1. Enabling institutional, strategic frameworks and policies for integrated sustainable land management (SLM) practices and restoration of degraded production landscapes.	Outcome 1: Enhanced national, state and district-level enabling frameworks incentivizing SLM practices and supporting participatory multi-sector platforms to avoid, reduce and reverse land degradation, biodiversity loss and climate mitigation.	Output 1.1: National and state level gender-responsive and inclusive land use framework developed for restoring land degradation, conserving biodiversity and positive climate action	UNDP	62000	10003	71300	Local Consultants	45,000	-	-	-	-	45,000	5
			Total UNDP					45,000	-	-	-	-	45,000	
			MoEFCC	62000	10003	72100	Contractual Services - Companies	45,000	45,000	-	-	-	90,000	1
			Total MoEFCC					45,000	45,000	-	-	-	90,000	
		Total Output 1.1						**90,000**	**45,000**	**-**	**-**	**-**	**135,000**	
		Output 1.2: Complementary cross-sectoral mainstreaming actions developed and demonstrated to enhance LDN, NDC and biodiversity outcomes in existing government schemes	UNDP	62000	10003	71300	Local Consultants	45,000	110,000	-	-	-	155,000	5
			Total UNDP					45,000	110,000	-	-	-	155,000	
			MoEFCC	62000	10003	72100	Contractual Services - Companies	37,500	37,500	-	-	-	75,000	1

		where agricultural, forestry and rangeland management practices underpin the livelihoods of poor rural farmers and pastoralists.		62000	10003	75700	Training, Workshops and Conferences	-	90,000	-	-	-	90,000	2
			Total MoEFCC					37,500	127,500	-	-	-	165,000	
		Total Output 1.2						**82,500**	**237,500**	-	-	-	**320,000**	
		Output 1.3 Multi-stakeholder platforms established and operationalized at national, state and landscape levels for integrating LDN in land-use planning frameworks.	UNDP	62000	10003	71600	Travel	36,000	-	-	-	-	36,000	7
			Total UNDP					36,000	-	-	-	-	36,000	
			MoEFCC	62000	10003	75700	Training, Workshops and Conferences	-	-	15,000	-	-	15,000	2
			MoEFCC	62000	10003	72100	Contractual Services - Companies	-	-	50,000	-	-	50,000	1
			Total MoEFCC					-	-	65,000	-	-	65,000	
		Total Output 1.3						**36,000**	**-**	**65,000**	**-**	**-**	**101,000**	
		Output 1.4 Capacities of key stakeholders strengthened for carrying out transformative projects resulting in land restoration, climate change mitigation and biodiversity conservation	MoEFCC	62000	10003	72100	Contractual Services - Companies	30,000	30,000	30,000	-	-	90,000	1
			Total MoEFCC					30,000	30,000	30,000	-	-	90,000	
			UNDP	62000	10003	75700	Training, Workshops and Conferences	41,250	-	41,250	41,250	41,250	165,000	6
			Total UNDP					41,250	-	41,250	41,250	41,250	165,000	
		Total Output 1.4						**71,250**	**30,000**	**71,250**	**41,250**	**41,250**	**255,000**	
		Output 1.5 Programs to enable participation of tribal groups14, especially women, aimed at internalizing LDN implemented in relevant state in partnership with local agencies with	UNDP	62000	10003	71600	Travel	20,000	20,000	20,000	-	-	60,000	7
			Total UNDP					20,000	20,000	20,000	-	-	60,000	
			MoEFCC	62000	10003	71600	Travel	-	-	-	21,000	21,000	42,000	3
				62000	10003	74200	Audio Visual&Print Prod Costs	20,000	20,000	20,000	20,000	20,000	100,000	4

		State and District administration.	Total MoEFCC					20,000	20,000	20,000	41,000	41,000	142,000	
		Total Output 1.5						**40,000**	**40,000**	**40,000**	**41,000**	**41,000**	**202,000**	
	Total Outcome 1							319,750	352,500	176,250	82,250	82,250	1,013,000	
Total Component 1								**319,750**	**352,500**	**176,250**	**82,250**	**82,250**	**1,013,000**	
Component 2. Implementing and up-scaling landscape-wide integrated sustainable ecosystem management practices to avoid, reduce and reverse degraded production landscapes	Outcome 2: Integrated participatory landscape design and financing models established in support of avoidance, reduction and reversal of land degradation, desertification, biodiversity loss and negative impacts of climate change to generates multiple sustained environmental and economic benefits.	Output 2.1: Drivers of land degradation identified and participatory, inclusive and gender-responsive, landscape level eco-restoration plans developed for targeted landscapes.	UNDP	62000	10003	71300	Local Consultants	50,000	-	-	-	-	50,000	11
				62000	10003	75700	Training, Workshops and Conferences	70,000	-	-	-	-	70,000	13
				62000	10003	71600	Travel	28,334	28,333	28,333	-	-	85,000	14
			Total UNDP					148,334	28,333	28,333	-	-	205,000	
			MoEFCC	62000	10003	72100	Contractual Services - Companies	70,000	130,000	130,000	-	-	330,000	9
				62000	10003	71800	Contractual Services - Imp Partn	-	90,000	90,000	-	-	180,000	8
				62000	10003	75700	Training, Workshops and Conferences	-	120,000	120,000	-	-	240,000	10
			Total MoEFCC					70,000	340,000	340,000	-	-	750,000	
		Total Output 2.1						**218,334**	**368,333**	**368,333**	**-**	**-**	**955,000**	
		Output 2.2: Gender-responsive and inclusive improved alternative sustainable land and ecosystem management practices and appropriate technologies identified, demonstrated and upscaled, for enhancing resilience of local communities and restoration of targeted landscapes.	UNDP	62000	10003	71300	Local Consultants	-	-	-	30,000	30,000	60,000	11
				62000	10003	71400	Contractual Services - Individual	27,360	27,360	27,360	27,360	27,360	136,800	12
			Total UNDP					27,360	27,360	27,360	57,360	57,360	196,800	
			MoEFCC	62000	10003	72100	Contractual Services - Companies	48,000	48,000	48,000	48,000	48,000	240,000	9
				62000	10003	75700	Training, Workshops and Conferences			60,000	60,000		120,000	10
			Total MoEFCC					48,000	48,000	108,000	108,000	48,000	360,000	
		Total Output 2.2						**75,360**	**75,360**	**135,360**	**165,360**	**105,360**	**556,800**	
		Output 2.3: Green, resilient and inclusive	UNDP	62000	10003	71300	Local Consultants	-	45,000	45,000	-	-	90,000	11

		recovery strategies developed and demonstrated through sustainable and gender responsive livelihood options that reduce pressures on natural resources		62000	10003	71600	Travel	-	-	42,500	42,500	-	85,000	14
			Total UNDP					-	45,000	87,500	42,500	-	175,000	
			MoEFCC	62000	10003	71800	Contractual Services - Imp Partn	-	-	120,000	120,000	-	240,000	8
				62000	10003	72100	Contractual Services - Companies	-	150,000	270,000	-	-	420,000	9
				62000	10003	75700	Training, Workshops and Conferences	-	-	60,000	60,000	-	120,000	10
			Total MoEFCC					-	150,000	450,000	180,000	-	780,000	
		Total Output 2.3						**-**	**195,000**	**537,500**	**222,500**	**-**	**955,000**	
		Output 2.4: Innovative and blended financing solutions demonstrated by fostering new strategic partnerships for implementation of the landscape level eco-restoration plans with enhanced resources towards achieving LDN.	UNDP	62000	10003	71400	Contractual Services - Individual	-	130,000	130,000	-	-	260,000	12
				62000	10003	75700	Training, Workshops and Conferences	-	-	30,000	30,000	30,000	90,000	13
			Total UNDP					-	130,000	160,000	30,000	30,000	350,000	
			MoEFCC	62000	10003	72100	Contractual Services - Companies	205,000	205,000	325,000	325,000	120,000	1,180,000	9
			Total MoEFCC					205,000	205,000	325,000	325,000	120,000	1,180,000	
		Total Output 2.4						**205,000**	**335,000**	**485,000**	**355,000**	**150,000**	**1,530,000**	
	Total Outcome 2							498,694	973,693	1,526,193	742,860	255,360	3,996,800	
Total Component 2								**498,694**	**973,693**	**1,526,193**	**742,860**	**255,360**	**3,996,800**	
Component 3. Information system for SLM and LDN indicators; gender mainstreaming, knowledge management, evaluation and project reporting, national outreach; and	Outcome 3: Improved capacity for LDN monitoring, assessment and reporting to UNCCD in support of LDN target setting and evaluation of capacities of partners; allowing government	Output 3.1: Information systems to document real-time data on impacts, trade-offs, costs-benefit analysis of restoration, and identifying incremental synergies through dashboard and web portal developed and institutionalized.	UNDP	62000	10003	72100	Contractual Services - Companies	50,000	50,000	-	-	-	100,000	18
			Total UNDP					50,000	50,000	-	-	-	100,000	
			MoEFCC	62000	10003	72100	Contractual Services - Companies	-	50,000	50,000	-	-	100,000	15
			Total MoEFCC					-	50,000	50,000	-	-	100,000	

South- South cooperation	institutions and other agencies to better document, analyse and disseminate effective intervention strategies for restoring productive landscapes and replication of best practices at national and state level, and at international level through improved South-South cooperation, knowledge and adaptive management.													
		Total Output 3.1						**50,000**	**100,000**	**50,000**	**-**	**-**	**200,000**	
		Output 3.2: Knowledge sharing mechanism established, and decision support and management capacities of stakeholders in the principles of agroecological intensification enhanced.	UNDP	62000	10003	71400	Contractual Services - Individual	27,000	27,000	27,000	27,000	27,000	135,000	17
				62000	10003	71600	Travel	11,250	26,250	26,250	48,750	22,500	135,000	20
			Total UNDP					38,250	53,250	53,250	75,750	49,500	270,000	
			MoEFCC	62000	10003	72100	Contractual Services - Companies	-	-	-	41,000	41,000	82,000	15
				62000	10003	75700	Training, Workshops and Conferences	-	7,000	7,000	7,000	-	21,000	16
			Total MoEFCC					-	7,000	7,000	48,000	41,000	103,000	
		Total Output 3.2						**38,250**	**60,250**	**60,250**	**123,750**	**90,500**	**373,000**	
		Output 3.3: Communication strategies, knowledge products and tools designed and developed for collation of good practices, rewarding innovation and dissemination of success stories and project results	UNDP	62000	10003	71400	Contractual Services - Individual	24,000	24,000	24,000	24,000	24,000	120,000	17
				62000	10003	74200	Audio Visual&Print Prod Costs	5,783	5,783	5,783	5,783	5,783	28,915	21
				62000	10003	71600	Travel	-	-	5,000	10,000	5,000	20,000	20
				62000	10003	75700	Training, Workshops and Conferences	-	12,000	12,000	12,000	-	36,000	19
				62000	10003	72100	Contractual Services - Companies	20,000	20,000	20,000	20,000	20,000	100,000	18
			Total UNDP					49,783	61,783	66,783	71,783	54,783	304,915	
		Total Output 3.3						**49,783**	**61,783**	**66,783**	**71,783**	**54,783**	**304,915**	
		Output 3.4: Centre of Excellence on Sustainable Land Management strengthened under the overall guidance and support of MoEFCC to further South-South	MoEFCC	62000	10003	72100	Contractual Services - Companies	40,000	40,000	40,000	40,000	40,000	200,000	15
			Total MoEFCC					40,000	40,000	40,000	40,000	40,000	200,000	

		cooperation and international alliances to address UNCCD global agenda												
		Total Output 3.4						**40,000**	**40,000**	**40,000**	**40,000**	**40,000**	**200,000**	
		Output 3.5: Project M&E system, incorporating gender mainstreaming and social and environmental safeguards, implemented for adaptive project management.	UNDP	62000	10003	71200	International Consultants	20,000	-	20,000	-	20,000	60,000	23
				62000	10003	71300	Local Consultants	7,000	7,000	32,000	7,000	25,000	78,000	22
				62000	10003	75700	Training, Workshops and Conferences	22,000	2,000	2,000	2,000	2,000	30,000	24
				62000	10003	71600	Travel	4,000	4,000	9,000	4,000	9,000	30,000	25
		Monitoring and Evaluation (M & E)	Total UNDP					53,000	13,000	63,000	13,000	56,000	198,000	
		Total Output 3.5 (M&E)						**53,000**	**13,000**	**63,000**	**13,000**	**56,000**	**198,000**	
	Total Outcome 3							231,033	275,033	280,033	248,533	241,283	1,275,915	
Total Component 3								**231,033**	**275,033**	**280,033**	**248,533**	**241,283**	**1,275,915**	
Project Management Cost (PMC)	PMC	PMC	UNDP	62000	10003	71400	Contractual Services - Individual	35,039	35,039	35,039	35,039	35,039	175,195	26
				62000	10003	72500	Supplies	4,138	4,138	4,138	4,138	4,138	20,690	27
				62000	10003	72800	Information Technology Equipmt	29,283	-	-	-	-	29,283	28
				62000	10003	74100	Professional Services	5,000	5,000	5,000	5,000	5,000	25,000	29
				62000	10003	64397	Services to Projects – CO staff	32,676	11,944	8,164	5,162	6,171	64,117	30
			Total UNDP					106,136	56,121	52,341	49,339	50,348	314,285	
			Total PMC					**106,136**	**56,121**	**52,341**	**49,339**	**50,348**	**314,285**	
Total Project Grant								**1,155,613**	**1,657,347**	**2,034,817**	**1,122,982**	**629,241**	**6,600,000**	

Budget Notes

Component 1: Enabling institutional, strategic frameworks and policies for integrated sustainable land management (SLM) practices and restoration of degraded production landscapes.

MoEFCC (Ministry of Environment, Forest, and Climate Change)

1	**Contractual service - Companies:** **3 contracts** to technical agencies in 3 states (Gujarat, Maharashtra, and Karnataka) for development of 3 SESAs, 3 ESIAs, 3 ESMPs, based on which develop gender inclusive land use frameworks for achievement of LDN (Land Degradation Neutrality) through integrated landscape management (Activity 1.1.4) = USD (US Dollar) 30,000 x 3 per state = **USD 90,000** (Y1-2) **3 contracts** to technical agencies for developing gender inclusive state level action plans to mainstream SLM actions across priority sectors (Activity 1.2.2) and implement ESMPs and ESIA protocols at USD 25,000 per state for 3 states = **USD 75,000** (Y2-4) **1 contract** to a technical agency for developing a framework on multi-stakeholder coordination mechanism for scaling out to other states, thereby supporting achievement of the overall national target for LDN (Activity 1.3.3) = **USD 50,000** (Y3) **3 contracts** to technical agency for gap assessment (Activity 1.4.1 and 1.5.1) (Y1), develop landscape specific training modules (Activity 1.4.2) (Y2-3) and training of target stakeholders (Activity 1.4.3 and 1.4.4) (Y2-3) at USD 30,000/state = **USD 90,000** **Total = USD 305,000**
2	**Training and workshops:** Stakeholder consultations for developing and presenting the state level SLM action plans (Activity 1.2.2) (Y2-3) and to develop the decision support system (Activity 1.2.3) (Y2) = USD 30,000 per state **= USD 90,000** 6 consultations in each state to establish multi-stakeholder platforms (Activity 1.3.2) at USD 2,500 per consultation (Y3) = **USD 15,000** **Total = USD 105,000**
3	**Travel Costs:** 7 Exposure visits of champion farmers (Activity 1.5.5) at USD 6,000 per visit **= USD 42,000** (Y4-5) **Total = USD 42,000**
4	**Audio Visual and Print Production Costs:** USD 30,000/state for 3 states and USD 10,000 for national level for developing and disseminating the training modules (Activity 1.4.2), translating, and distributing the land use frameworks (Activity 1.1.4) and state level action plans to decentralize DLDD planning (Activity 1.2.2) to landscape level community-based organizations (Y1-5) = **USD 100,000**

	Total = USD 100,000

UNDP (United Nations Development Programme)

5	**Local consultants:** **3 Land-use planning experts/national consultants** for review and analyses of existing sectoral policies for LDN (Activity 1.1.1), land use planning policies (Activity 1.1.2) and identify synergies for Rio conventions (Activity 1.1.3) = USD 15,000 per state for 3 states = **USD 45,000** (Y1) for a period of 13 weeks over 12 months **3 Policy specialists** to undertake a review of government schemes currently under implementation to identify opportunities for integrating SLM including mapping of existing funding sources and expenditures to identify opportunities for mainstreaming SLM (Activity 1.2.1) at USD 30,000 per state for 3 states = **USD 90,000** (Y1-2) for a period of 20 weeks over 24 months **1 national consultant** for developing decision-support system for planning, monitoring and adapting climate-resilient SLM (Activity 1.2.3) = **USD 65,000** (Y2) for a period of 12 weeks over 12 months **Total = USD 200,000**
6	**Training and workshops:** Capacity building workshops (Activity 1.4.1) (Y1) and training programmes of staff, local NGOs (Non-Governmental Organizations), trainers, and community members in 6 landscapes (Activity 1.4.4 and 1.5.4) (Y3-5) at USD 27,500 per landscape = **USD 165,000**
7	**Travel Costs:** Travel of consultants to the six landscapes to identify key stakeholders (Activity 1.3.1) across target project sites and capacity assessment of stakeholders (Activity 1.4.1) including community members (Activity 1.5.1) (Y1) at USD 6,000/landscape = **USD 36,000** Travel of consultants to the six landscapes to identify champion famers using FPIC (Free, Prior and Informed Consent) approach (Activity 1.5.2) (Y1) and undertake capacity building and awareness programmes for tribal communities across the target districts to carry out specialized training modules (Activity 1.5.3) (Y2-3) = **USD 60,000** **Total = USD 96,000**

Component 2: Implementing and up-scaling landscape-wide integrated sustainable ecosystem management practices to avoid, reduce and reverse degraded production landscapes.

MoEFCC

8	**Contractual Services-Imp Partn:** **3 GIS (Geographic Information System) specialists** to prepare GIS-based participatory landscape level land use maps to quantify status of prevailing land degradation processes (Activity 2.1.2) at USD 60,000 per state = **USD 180,000** (Y2-3) for a period of 24 months **3 livelihood specialists** to provide technical support for mapping of existing Farmers Producer Organizations (FPOs) that are already engaged in value chains across project sites, and provide training in the steps necessary to formalize and/or strengthen producer groups (Activity 2.3.1) = USD 80,000 per state = **USD 240,000** (Y3-4) for a period of 24 months **Total = USD 420,000**
9	**Contractual service - Companies:** **3 contracts** to technical agencies/NGOs for developing gender inclusive eco-restoration plans, including implementing the safeguards capacity building plan = **USD 260,000** for three states (Activity 2.1.4) (Y2-3a); Implementation of ESMF that is development of SESAs, ESIAs, ESMPs (including LAPs, SIPs) = **USD 70,000** (Y1) for a period of 7 weeks over 6 months (Note: balance of ESMF budget of USD20k is reflected under BN#23), total **USD 330,000** **3 contracts** to technical agencies to demonstrate sustainable management practices for restoration of grassland, forest, and agriculture lands (Activity 2.2.1, 2.2.2 and 2.2.3) at USD 80,000/ state for 3 states = **USD 240,000** (Y1-5) **3 contracts** to technical agencies to undertake assessments for livelihood enhancement through proposed small and medium enterprises (Activity 2.3.2) at USD 50,000 per state = **USD 150,000** (Y2) **3 contracts** to technical agencies to develop business plans for value chains, based on review of existing value-added products, including market access, marketing plans, etc. (Activity 2.3.3) at USD 90,000 per state = **USD 270,000** (Y3) **4 contracts** to technical agencies to identify and document sources of blended financing for scaling up of SLM (Activity 2.4.2) and develop database of private players engaged in supporting SLM practices (Activity 2.4.4) state at USD 205,000/subcontract = **USD 820,000** (Y1-4) **3 contracts** to technical agencies to draft and implement a sustainable financing strategy for implementation of the eco-restoration plans (Activity 2.4.3) at USD 120,000 per state = **USD 360,000** (Y3-5) **Total = USD 2,170,000**
10	**Training and workshops:** 6 Stakeholder consultations to develop and present landscape level eco restoration plan including obtaining the FPIC (Activity 2.1.4) at USD 80,000 per state for 3 states = **USD 240,000** (Y2-3)

	6 Training programmes (one for each landscape) for staff, community members and local NGOs to monitor demonstrations being undertaken on SLM (Activity 2.2.4) USD 20,000 per training = **USD 120,000** (Y3-4) 8 Trainings on strengthening Farmer Producer Organizations (Activities 2.3.1) and value chain development and business management (Activity 2.3.4) at USD 15,000 per training = **USD 120,000** (Y3-4) **Total = USD 480,000**

UNDP

11	**Local consultants:** **One consultant** to review and document existing innovative models, best practices, and technologies available on SLM (Activity 2.1.3) (Y1) = **USD 50,000** for a period of 8 weeks over 12 months **One consultant** to develop and initiate a replication plan for upscaling of best practices in at least 5 new districts (Activity 2.2.5) (Y4-5) = **USD 60,000** for a period of 13 weeks over 24 months **Three consultants** to develop training materials and undertake the training for value-chains enhancement and business management (e.g., marketing, processing, and certification) for local communities, extension services, farmers, women groups, and youth (Activity 2.3.4) at USD 30,000 per state (Y2-3) = **USD 90,000** for a period of 45 weeks over 24 months **Total = USD 200,000**
12	**Contractual services - Individuals:** **4 public finance specialists** to assess current and future financial needs to implement the eco-restoration plans and achieve LDN targets and define a suite of financial incentives and disincentives for third parties (private enterprises, landowners, farmers, and others) for the sustenance of ecological benefits., with special efforts to identify women-specific support under budgets for gender equality (Activity 2.4.1) = USD 65,000 x 4 = **USD 260,000** (Y2-3) for a period of 24 months **Engagement of 6 community mobilizers** (one mobilizer per landscape) for demonstration of sustainable management practices for restoration of grassland, forest, and agriculture lands (Activity 2.2.1, 2.2.2 and 2.2.3) = USD 4,560 per mobilizer per year = **USD 136,800** (Y1-5) for a period of 60 months **Total = USD 396,800**
13	**Training and workshops:** 1 National level workshop and 3 state level workshops on existing evidence based SLM innovative models, best practices, and technologies available (Activity 2.1.3) in (Y1) = USD 20,000 per state and USD10,000 for national level = **USD 70,000**

	Stakeholder engagements for developing and implementing sustainable financing strategy for implementation of the eco-restoration plans (Activity 2.4.3) at USD 30,000 per state = **USD 90,000** (Y3-5) **Total = USD 160,000**
14	**Travel costs:** Travel cost associated with baseline survey (Activity 2.1.1) (Y1) and preparing participatory land use plans (Activity 2.1.2) (Y2-3) = **USD 85,000** Travel cost for undertaking the trainings on strengthening FPOs (Activity 2.3.1) and on value chain enhancement and business management (Activity 2.3.4) = **USD 85,000** (Y3-4) **Total = USD 170,000**

Component 3: Monitoring system for SLM and LDN indicators; gender mainstreaming, knowledge management, evaluation and project reporting, national outreach; and south- south cooperation.

Outcome 3: Improved capacity for LDN monitoring, assessment, and reporting to UNCCD (United Nations Convention to Combat Desertification) in support of LDN target setting and evaluation of capacities of partners; allowing government institutions and other agencies to better document, analyze and disseminate effective intervention strategies for restoring productive landscapes and replication of best practices at national and state level, and at international level through improved South-South cooperation.

MoEFCC

15	**Contractual services – Companies:** **1 contract** to technical agency to develop digital knowledge platform for storage, management, and analysis of LD (Land Degradation) and LDN-related data, practices, and lessons (Activity 3.1.1.2) including establishing a specific 'dashboard' within the LDN knowledge platform targeted at government decision-makers to facilitate ease of reporting (Activity 3.1.1.3) = **USD 100,000** (Y2-3) **1 contract** to technical agency to develop national LDN monitoring and reporting system (Activity 3.1.2.3) and sustainability plan for the system (Activity 3.1.2.4) = **USD 82,000** (Y4-5) **Contract to the Center of Excellence on Sustainable Land Management** to review activities and mandates of existing relevant national and international institutions (Activity 3.1.4.1), develop gender-aware course curriculum and training modules in consultation with national and international experts (Activity 3.1.4.2), preparing international roster of experts (Activity 3.1.4.3) and for effective South-South Cooperation (Activity 3.1.4.4) = **USD 200,000** (Y1-5) **Total = USD 382,000**
16	**Training and Workshops**:

	Establish knowledge sharing platforms and undertake capacity building programmes for key stakeholder groups on LDN assessment and monitoring (Activity 3.1.2.2) = USD 7,000 per state = **USD 21,000** (Y2-4) **Total = USD 21,000**

UNDP

17	**Contractual services - Individuals:** **3 communication specialists** to develop training modules on communication (Activity 3.1.3.4) and implement a Knowledge Management and Communication Strategy and associated financing plan to guide all project knowledge management, communication, and outreach activities (Activity 3.1.3.3) and synthesize all project-generated knowledge acquired (Activity 3.1.3.5) = USD 40,000 per state = **USD 120,000** (Y1-5) for a period of 60 months **1 gender specialist** to undertake gender responsive capacity building programmes for key stakeholder groups on LDN assessment and monitoring (Activity 3.1.2.2) = USD 12,000 per year = **USD 60,000** (Y1-5) for a period of 60 months **1 specialist** to operationalize LDN monitoring and reporting system to guide LD and SLM assessment, monitoring and decision-making in the integrated land management process (Activity 3.1.2.3) = USD 15,000 per year = **USD 75,000** (Y1-5) for a period of 60 months **Total = USD 255,000**
18	**Contractual services – Companies:** **1 contract** to technical agency to review current national LDN core indicators (land cover, land productivity and carbon stocks), assessment and monitoring systems (Activity 3.1.1.1), update existing spatial planning/GIS-based systems/facilities (Activity 3.1.1.4) and develop knowledge sharing mechanism (Activity 3.1.2.1) = **USD 100,000** (Y1-2) **3 contracts to** technical agencies to develop gender-aware project communication materials including web-based platform (Activity 3.1.3.1) and develop a process framework for transfer of project information (Activity 3.1.3.2) = USD **100,000** (Y1-5) **Total = USD 200,000**
19	**Training and workshops**: Deliver a training module on communication and outreach to develop the capacity of the Project Management Unit and key stakeholders to design and deliver effective social-media content (Activity 3.1.3.4) = USD 12,000 per state = **USD 36,000** (Y2-4) **Total = USD 36,000**
20	**Travel costs:** Travel costs to establish knowledge sharing platforms and undertake capacity building programmes for key stakeholder groups (Activity 3.1.2.2) at USD 15,000/State (Y2-4) = **USD 45,000**

	Travel costs for operationalizing national LDN monitoring and reporting system to guide LD and SLM assessment (Activity 3.1.2.3) (Y1-4) at USD 15,000/State = **USD 45,000** Travel cost to operationalize plan for the sustainability (financial, institutional, and human capacity) of the LDN monitoring and reporting system (Activity 3.1.2.4) at USD 15,000/State – **USD 45,000** (Y4-5) Travel costs for participation in national, regional, and global events including Conference of Parties (Activity 3.1.3.5) = **USD 20,000** (Y3-5) **Total = USD 155,000**
21	**Audio Visual & Print Prod Costs:** Printing of communication materials and knowledge products (Activity 3.1.3.1) = USD 7,000 per state (for 3 states) and USD 7,915 at the national level = **USD 28,915** (Y1-5) **Total = USD 28,915**

UNDP

22	**Local consultants:** Engagement of 1 Safeguards Expert for operationalization of the ESMF and Safeguards Capacity-Building Plan, and monitoring of the Environmental and Social Safeguards = USD 7,000/year for 4 years = **USD 28,000** (Y1-4) for a period of 24 weeks over 48 months Engagement of 1 National Consultant for undertaking Mid-term review of the project (Activity 3.2.1.5) = **USD 25,000** (Y3) for a period of 16 weeks over 12 months Engagement of 1 National Consultant for undertaking Terminal Evaluation of the project (Activity 3.2.1.5) = **USD 25,000** (Year 5) for a period of 16 weeks over 12 months **Total = USD 78,000**
23	**International consultants:** Engagement of 1 International Consultant for Development of 3 SESAs, 3 ESIAs, 3 ESMPs (including LAPs, SIPs) = **USD 20,000** (Y1) for a period of 7 weeks over 6 months Engagement of 1 International Consultant for Mid-term review = **USD 20,000** (Y3) for a period of 16 weeks over 12 months Engagement of 1 International Consultant for Terminal Evaluation = **USD 20,000** (Y5) for a period of 16 weeks over 12 months **Total = USD 60,000**

24	**Training and workshops:** Organize Inception Workshop at national (Activity 3.2.1.1) = **USD 20,000** (Y1) PMUs (Project Management Unit) staff orientation, periodic training, and supervision missions for effective project management (Activity 3.2.1.2) and Monitoring of Environmental and Social Safeguards including gender and stakeholder engagement = USD 2,000/year = **USD 10,000** (Y1-5) **Total = USD 30,000**
25	**Travel costs:** Yearly visits for tracking GEF (Global Environment Facility) core indicators (Activity 3.2.1.3) and Implementation of ESMPs and ESIAs report and protocols = USD 4,000/year= **USD 20,000** (Y 1-5) Travel for MTR (Medium Term Review) to both the landscapes (Activity 3.2.1.5) = **USD 5,000** (Y3) Travel for TE (Terminal Evaluation) to both the landscapes (Activity 3.2.1.5) = **USD 5,000** (Y5) **Total = USD 30,000**

Project management costs (PMC)

UNDP

26	**Contractual Services – Individual:** 1 National Project Officer = USD 13,059/year = **USD 65,295** 1 Procurement, Finance and Admin Officer = USD 5,420/year = **USD 27, 100** 1 Landscape Project Officer (Gujarat) = USD 5,520/year = **USD 27,600** 1 Landscape Project Officer (Maharashtra) = USD 5,520/year = **USD 27,600** 1 Landscape Project Officer (Karnataka) = USD 5,520/year = USD **27,600** **Total = USD 175,195**
27	**Office Supplies:** Stationery, printer cartridges, paper, etc.= USD 4,138/year = **USD 20,690** (Y1-5) **Total = USD 20,690**
28	**Information Technology Equipment** Laptops, tablets, and printers = **USD 29,283** (Y1) **Total = USD 29,283**

29	**Professional Services** Annual audit at USD 5,000/year for 5 years = **USD 25,000** (Y1-5) **Total = USD 25,000**
30	**Services to projects – CO Staff** UNDP Services to project = **USD 64,117**. Refer to draft LOA (Letter of Agreement) (Annex 18) for itemized services and their associated costs **Total = USD 64,117**

X. LEGAL CONTEXT

- The project document shall be the instrument envisaged and defined in the Supplemental Provisions to the Project Document, attached hereto and forming an integral part hereof, as "the Project Document".
- This project will be implemented by the Ministry of Environment, Forest and Climate Change (MoEFCC) in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

XI. RISK MANAGEMENT

- Consistent with the Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;

b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

- UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

- The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the United Nations Security Council consolidated Sanctions List, and that no UNDP funds received pursuant to the Project Document are used for money laundering activities. The United Nations Security Council Consolidated Sanctions List can be accessed via https://www.un.org/securitycouncil/content/un-sc-consolidated-list.

- The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.

(a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").

(b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment. SH may occur in the workplace or in connection with work. While typically involving a pattern of conduct, SH may take the form of a single incident. In assessing the reasonableness of expectations or perceptions, the perspective of the person who is the target of the conduct shall be considered.

- a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

    i. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;

    ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding

the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;

iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;

iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and

v. Promptly and confidentially, record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation..

- b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.
- Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).
- The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.
- All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.
- The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds.
- In the implementation of the activities under this Project Document, UNDP places reasonable reliance upon the Implementing Partner for it to apply its laws, regulations and processes, and applicable international laws regarding anti money laundering and countering the financing of terrorism, to ensure consistency with the principles of then in force the UNDP Anti-Money Laundering and Countering the Financing of Terrorism Policy.
- Implementing Partner will ensure that its financial management, anti-corruption, anti-fraud and anti-money laundering and countering the financing of terrorism policies are in place and enforced for all funding received from or through UNDP.
- The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.
- In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

- The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

- UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document..

Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document..

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

- Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.
- Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP..
- The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, mutatis mutandis, in all sub-contracts or sub-agreements entered into further to this Project Document.

XII. MANDATORY ANNEXES

1. GEF Budget Template
2. GEF Execution Support Letter
3. Project Map and Geospatial Coordinates of the Project Area
4. Multiyear Workplan
5. Social and Environmental Screening Procedure (SESP)
6. UNDP Atlas Risk Register
7. Overview of Technical Consultancies/Subcontracts
8. Stakeholder Engagement Plan
9. Environmental Social Management Framework (ESMF) and Social Inclusion Planning Framework (SIPF)
10. Gender Analysis and Gender Action Plan
11. Procurement Plan (for first year of implementation)
12. GEF Land Degradation Focal Area-Specific Annexes
13. Covid-19 Analysis and Action Framework
14. Climate and Disaster Risk Screening Report
15. Co-financing Letters: pending from Karnataka
16. GEF Core Indicators
17. GEF Taxonomy
18. Signed LOA between UNDP and IP requesting UNDP Support Services: draft
19. Private Sector Due Diligence Tool
20. Partners Capacity Assessment Tool and HACT assessment