



Enabling Activity – GEF - 7

Preparation of India's Fourth National Communication (4NC), Fourth Biennial Update Report (BUR4) and First Biennial Transparency Report (BTR1) to the UNFCCC and strengthening institutional and analytical capacities on climate change.

Part I: Project Information

GEF ID

Project Type

EA

Type of Trust Fund

GET

CBIT

☐ CBIT

Project Title

Preparation of India's Fourth National Communication (4NC), Fourth Biennial Update Report (BUR4) and First Biennial Transparency Report (BTR1) to the UNFCCC and strengthening institutional and analytical capacities on climate change.

Countries

India

Agency(ies)

UNDP

Other Executing Partner(s)

Ministry of Environment Forest and Climate Change

Executing Partner Type

Government

GEF Focal Area

Climate Change

Taxonomy

Focal Areas, Climate Change, Climate Change Adaptation, Climate Change Mitigation, United Nations Framework Convention on Climate Change, Paris Agreement, Enabling Activities, Stakeholders, Gender Equality, Capacity, Knowledge and Research, Capacity Development, Knowledge Generation, Training, Workshop, Knowledge Exchange, Conference, Targeted Research

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 2

Climate Change Adaptation

Climate Change Adaptation 1

Duration

60 In Months

Agency Fee(\$)

433,770

Type of Reports**Submission Date****Expected Implementation Start**

UNFCCC National Communications (NC)

2/12/2020

1/1/2021

UNFCCC Biennial Update Report (BUR)

2/12/2020

1/1/2021

A. Indicative Focal/Non-Focal Area Elements

| Programming Directions | Trust Fund | GEF Amount(\$) | Co-Fin Amount(\$) |
|------------------------|-------------------------|----------------|-------------------|
| CCM-EA | GET | 4,566,000 | 18,000,000 |
| | Total Project Cost (\$) | 4,566,000 | 18,000,000 |

B. Indicative Project description summary

Project Objective

To support Government of India in preparation of the National Reports s (4NC, BUR4 and BTR1) to UNFCCC and to strengthen institutional and technical capacity for implementation of the obligations under the UNFCCC on continuous and sustainable manner.

| Project Component | Project Outcomes | Project Outputs | GEF Amount(\$) | Co-Fin Amount(\$) |
|----------------------|---------------------|--------------------|----------------|-------------------|
|----------------------|---------------------|--------------------|----------------|-------------------|

| Project Component | Project Outcomes | Project Outputs | GEF Amount(\$) | Co-Fin Amount(\$) |
|--|--|---|----------------|-------------------|
| 1. Information on national circumstances and institutional arrangements relevant to the preparation of the national reports (4NC, BUR4 and BTR1), related financial, technical and capacity needs and other relevant information | 1. Updated information on national circumstances in 4NC, BUR4 and BTR1, institutional arrangements relevant to the preparation of national reports and to progress made in implementing and achieving NDC, related financial, technical and capacity needs and other relevant information strengthened | <p>1. India's development priorities, policies and programmes at national and state level with focus on climate change including gender.</p> <p>2. Geography, population, climate, economy and the climate sensitive sectors, communities.</p> <p>3. Establishing gender balanced institutional structure relevant to the periodic conduct of GHG inventory.</p> <p>4. Progress on national actions to reduce GHG emissions sector wise.</p> <p>5. National Circumstances</p> | 750,000 | 3,000,000 |

| Project Component | Project Outcomes | Project Outputs | GEF Amount(\$) | Co-Fin Amount(\$) |
|---|--|--|----------------|-------------------|
| 2. Increasing national capacity on GHG Inventory as per 2006 IPCC guidelines or any subsequent version or refinement of the IPCC guidelines | 2. Increased accuracy of GHG inventory through the use of tier-II and III methodologies for key category sectors and streamlined national institutional structure for long term and sustainable National GHG inventory | <p>1. Documented inventory of GHG emissions as per 2006 IPCC guidelines or subsequent refinement for (a) Energy (b) Transport (c) Industry (d) Agriculture (e) Land Use, Land Use Change and Forestry, and (f) Waste sectors, for 2018 (BUR4), up to 2021 (BTR1) and 2022 (4NC) developed.</p> <p>2. Completed National Activity Data, and development and refinement of country specific Emission Factors and information for all source categories.</p> <p>3. Documented</p> | 1,500,000 | 10,000,000 |

| Project Component | Project Outcomes | Project Outputs | GEF Amount(\$) | Co-Fin Amount(\$) |
|---|--|--|----------------|-------------------|
| 3. Vulnerability, Impact and Adaptation | 3. Improved climate change projections, appropriate actions planned for addressing, vulnerability to climate change at different sectors and regions with the use of advanced and updated Climate Change models. | <p>1. Developed and applied advanced models to profile climate variability at district level</p> <p>2. Climate variability maps at district level for India.</p> <p>3. Documented climate scenarios (short-, medium-, and long-term) based on Multiple Global climate models (GCM) / Regional Climate Models (RCMs) and climate change parameters at RCM grid level.</p> <p>4. Documented projections and results of impact assessments of climate change (including impact on</p> | 950,000 | 2,000,000 |

| Project Component | Project Outcomes | Project Outputs | GEF Amount(\$) | Co-Fin Amount(\$) |
|--|---|---|----------------|-------------------|
| 4. Mitigation actions and domestic MRV | 4. Increased understanding of a) GHG mitigation policies and measures at national and state level b) gaps and constraints pertaining to financial, technical and capacity needs to address climate change. c)implementin g and achieving the NDCs | <p>1. Documentation on national climate change mitigation actions, policies and measures.</p> <p>2. Improved future GHG emission scenarios for India using up-to-date information.</p> <p>3. Mitigation potential for energy and land-use change, and costs of action and non-GHG mitigation benefits.</p> <p>4. Mitigation policies and measures, actions and plans, including those with mitigation co-benefits resulting from adaptation</p> | 855,714 | 2,000,000 |

| Project Component | Project Outcomes | Project Outputs | GEF Amount(\$) | Co-Fin Amount(\$) |
|---|--|--|----------------|-------------------|
| 5. Submission of Fourth National Communication, Fourth BUR, Knowledge management, Monitoring and Evaluation First BTR | 5. 4NC, BUR4, BTR1 compiled, approved by the Government of India and submitted to UNFCCC | <p>1. 4NC, BUR4, BTR1 compiled, approved, published and submitted to the UNFCCC</p> <p>2. Developed and disseminated technical reports, such as the GHG inventories, V&A adaptation assessments at the sectoral level, brief summaries of key policy issues relevant for decision making, and brief summaries of the key climate changes issues and findings at the district level</p> <p>3. Project regularly monitored, financial audit conducted, lessons learned</p> | 300,000 | 500,000 |

| Project Component | Project Outcomes | Project Outputs | GEF Amount(\$) | Co-Fin Amount(\$) | | |
|-------------------------------|------------------|-----------------|------------------------|-------------------|-----------|------------|
| | | | | Sub Total (\$) | 4,355,714 | 17,500,000 |
| Project Management Cost (PMC) | | | | | | |
| | | | | | 210,286 | 500,000 |
| | | | | Sub Total(\$) | 210,286 | 500,000 |
| | | | Total Project Cost(\$) | | 4,566,000 | 18,000,000 |

C. Indicative sources of Co-financing for the Project by name and by type

| Sources of Co-financing | Name of Co-financier | Type of Co-financing | Investment Mobilized | Amount(\$) |
|-------------------------|---|----------------------|-------------------------------|-------------------|
| Government | Ministry of Environment Forest and Climate Change | In-kind | Recurrent expenditures | 3,000,000 |
| Government | Ministry of Environment Forest and Climate Change | Grant | Recurrent expenditures | 2,000,000 |
| Government | Government Institutions undertaking studies | In-kind | Recurrent expenditures | 13,000,000 |
| | | | Total Project Cost(\$) | 18,000,000 |

Describe how any "Investment Mobilized" was identified

Not applicable

D. GEF Resources Requested by Agency, Trust Fund, Country, Focal Area and the Programming of Funds

| Agency | Trust Fund | Country | Focal Area | Programming of Funds | Amount(\$) | Fee(\$) | Total(\$) |
|--------------------------------|-------------------|----------------|-------------------|-----------------------------|-------------------|----------------|------------------|
| UNDP | GET | India | Climate Change | CC STAR Allocation | 3,714,000 | 352,830 | 4,066,830 |
| UNDP | GET | India | Climate Change | CC Set-Aside | 852,000 | 80,940 | 932,940 |
| Total GEF Resources(\$) | | | | | 4,566,000 | 433,770 | 4,999,770 |

Part II. Enabling Activity Justification

A. ENABLING ACTIVITY BACKGROUND AND CONTEXT

Provide brief information about projects implemented since a country became party to the convention and results achieved

Global Environmental Problems, Root Causes and Barriers that Need to be Addressed

India is committed at the highest level to meeting its national commitments made to the international community through UNFCCC and the Paris Agreement. The Government of India signed the United Nations Framework Convention on Climate Change (UNFCCC) on June 10, 1992 and ratified it on November 1, 1993. India also ratified the Kyoto Protocol in 2002 and finally, in 2016, India signed and ratified the Paris Agreement.

As a party to the United Nations Framework Convention on Climate Change (UNFCCC), India is obliged to regularly submit national reports on how the country is implementing the Convention to the Conference of the Parties (COP) of the UNFCCC. Reporting through national communications and biennial update reports is the Convention's primary source of information on Parties implementation of commitments and collective progress toward meeting its ultimate objective. Preparation of a national communications and biennial update reports helps India to focus coordination and planning at the national level. In this way, a regular reporting obligation can facilitate the development of permanent institutional capacity and processes related to climate change activities. Second, communication of information on implementation provides a vehicle for exchange of experiences and learning globally.

Moreover, the Paris Agreement entails an Enhanced Transparency Framework (ETF), an important component of the ambition cycle in the global climate regime, designed to build trust and confidence that all countries are contributing their share to the global effort by taking action to meet their national climate targets and actions defined in their NDCs.

This includes information related to Parties' greenhouse gas (GHG) emissions, actions taken to reduce those emissions and to adapt to the impacts of climate change, as well as the financial, technological, and capacity building support provided and received by some Parties.

Part of the decision made at COP 24 and the first session of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement is the introduction of modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement. The new mechanism requires the Parties to adopt the 2006 IPCC guidelines with any subsequent version or refinement and submit time series GHG inventory, subject to a technical expert review and facilitative, multilateral consideration of progress. This poses further challenge to the preparation of a follow-up GHG inventory, institutional strengthening and capacity-building. Even

though the ETF provides built-in flexibility to those developing countries that need it owing to their national circumstances; different starting points in institutional capacities; or readiness to fulfil reporting requirements, capacity-building and support from developed country Parties will be crucial to facilitating improvement in reporting over time.

The final biennial update reports for developing countries can be submitted no later than 31 December 2024 and will undergo the last ICA cycle between 2024-2026. Parties under the Paris Agreement are required to submit their first biennial transparency report (BTR1) and national inventory report, if submitted as a stand-alone report, in accordance with the Modalities, Procedures and Guidelines (MPGs), at the latest by 31 December 2024.

Alongside meeting reporting requirements for non-annex I countries (NC, BUR, BTR), this project aims to strengthen institutional architecture and facilitate informed policy-decisions within India; thereby promoting the generation and submission of credible information in a transparent and timely manner to UNFCCC.

India has been conscious of the global challenge of Climate Change and has taken a number of steps in the recent past for addressing the same.

I. India has constituted the Prime Ministers' Council on Climate Change as a High Level advisory group on climate change issues comprising Government Representatives and Non-Government Members.

II. A National Action Plan on Climate Change (NAPCC) has been developed outlining existing and future policies and programs addressing climate mitigation and adaptation.

III. At the sub-national level, state governments have been asked to develop state-specific action plans for the agriculture, water, forest, disaster, energy, industry and transport sectors in line with NAPCC. Most of the states have prepared the State Action Plan on Climate Change (SAPCC) but implementation of these action plans on the ground has not yet started.

IV. India submitted its Nationally Determined Contribution (NDC) to the UNFCCC, outlining the climate actions indented to be taken under the Paris Agreement. India has communicated mitigation and adaptation targets under NDCs and the estimated financial requirements needed to meet its NDCs. India's NDC commitments encompass the areas of clean energy, industrial energy efficiency, urban centres, waste management, transportation, forestry etc. The NDC also mentions adaptation actions that cover agriculture, water, health, coastal regions and islands, Himalayan ecosystems, rural livelihoods and forestry.

V. India has successfully prepared its First and Second National Communications and is also preparing its Third National Communication for submission in October 2020. Since the preparation of its first NC (1NC), the process of development of national communications has triggered large scale networking, capacity building and involvement of research organizations and various government departments. The preparation of the 2 previous NCs has led to the development of expert teams for preparation of GHG inventories as well as assessment of impacts, vulnerability, and adaptation.

VI. India also submitted two Biennial Update Reports (2016, 2018). In the first BUR India reported 2.136 Billion tonnes of CO₂ equivalent greenhouse gases (GHG) in 2010 with the energy sector being the top contributor at 71 per cent. In the second BUR India reported total of 2.607 billion tonnes of CO₂ equivalent of GHGs emissions from all activities (excluding LULUCF). The net national GHG emissions after including LULUCF were 23,06,295 Gg CO_a equivalent (around 2.306 billion tonnes of CO₂ equivalent).

Out of the total emissions, energy sector accounted for 73%, IPPU 8%, agriculture 16% and waste sector 3%. About 12% of emissions were offset by the carbon sink action of forestland, cropland and settlements.

VII. The FSV held for previous BURs stated, India reported transparently in its BUR on its national circumstances, institutional arrangements, GHG emissions inventory, mitigations policies relevant to the preparation of its national communications and BURs on a continuous basis. It reported that the government has taken steps towards creating institutional arrangements for the preparation of national communications and BURs on a continuous basis.

VIII. Transparency arrangements play a very crucial role to understand the challenges and opportunities towards meeting the long-term temperature goal and to ensure an adequate balance between action and support. In this bid, the developing countries have been accorded built-in flexibilities with the implementation of ETF measures considering their limited capacities and further needs for improvement. India had submitted a PIF on “Capacity-building for establishing an Integrated and Enhanced Transparency Framework for Climate actions and support measures” and received PPG support for the development of a full-sized CBIT project under the GEF-7. The project objective is to enable domestic policy planners following the enhanced transparency framework guidelines prescribed by the Paris Agreement through an efficient coordination mechanism between relevant stakeholders. The project outcomes will focus on the following outcomes: a) The nodal ministry (MoEFCC) would be better equipped to lead, plan, coordinate, implement, monitor and evaluate policies, strategies, and programmes to enhance transparency, including communications with states and expert agencies in an effective manner; b) Bringing all stakeholder together through a web-based National Institutional Coordination System (NICS) to enhance efficiency and transparency with climate reporting; c) Ability to report GHG emission inventories as per IPCC 2006 guidelines (or latest applicable); d) Information to facilitate clarity, transparency, and understanding of NDCs associated with climate actions; e) State focal points submitting information through NICS; f) Developing capacity retention mechanisms; g) Dissemination of relevant information on GHG inventories and NDC progress through the National Climate Registry (NCR); h) Enhanced capacity to mobilise climate finance; h) Knowledge management and project-related learnings. The 4NC/BUR4/BTR1 project will complement the CBIT project and will build on its outcomes and outputs and vice versa. The workplans and activities of the 2 projects will be closely coordinated to enhance synergies and avoid overlap.

India has successfully prepared and submitted its First and the Second National Communications and First and Second Biennial Update Reports. Activities for the preparation of India’s BUR3 and Third National Communication are being implemented. India aims to submit its Third BUR and Third NC by October 2020.

The process for development of the NCs and BURs, funded by the GEF and supported by UNDP as an implementing agency, has evolved throughout the years, and significant progress has been noted in the quality of the GHG Inventories both in terms of activity data and emission factors, incorporating quality assurance and control, management of uncertainties, development of mitigation scenarios and modeling of relevant actions and measures. However, there are still gaps and capacity building needs that must be addressed for continuous preparation and reporting of GHGI, for impact and vulnerability assessments across sectors and regions, sensitizing the vast Indian population vulnerable to these impacts, adaptation need assessments and their implementation, mitigation actions, and MRV systems. This is a continuous challenge requiring consistent support from international community, including appropriate financing. Considering India’s needs are dynamic and evolving, capacity building will be a dynamic process to address new needs as they continue to emerge with time.

B. ENABLING ACTIVITY GOALS, OBJECTIVES, AND ACTIVITIES

The proposal should briefly justify and describe the project framework. Identify also key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable. Describe also how the gender equality and women's empowerment are considered in project design and implementation

The proposed project intends to prepare India's Fourth National Communication (4NC), Fourth Biennial Update Report (BUR4) and First Biennial Transparency Report (BTR1) and to fulfil its commitments to the UNFCCC in accordance with the relevant decisions of the Conference of Parties. The project will strengthen institutional and analytical capacities at decentralized level which will eventually enable India to prepare improved climate change adaptation and mitigation strategies, enhanced technology transfer for adaptation and mitigation, sustained institutional capacity for developing future national communications.

The 4NC/BUR4/BTR1 project will build on findings and recommendations from previous NC and BUR work as well as recommendations resulting from the ICA process for BUR. The First Biennial Update report of India underwent the International Consultation Analysis (ICA) process in 2017. The Technical analysis for India's BUR2 is completed and the report was published on UNFCCC website on 2nd October 2019. The FSV was held in December 2019. Active participation in both ICA components – the technical analysis of the submitted BURs, and the workshop for facilitative sharing of views under the Subsidiary Body for Implementation, has been valuable and positive experience for the country and the team. The following were the key capacity-building needs identified in consultation of TTE (Team of Technical Experts) with India:

- (a) Estimating and reporting of GHG inventories through higher tier estimations, country specific emission factors for key sectors, capacity building at all levels for designing and implementing MRV.
- (b) Establishing and implementing an integrated domestic MRV system for GHG mitigation actions, including integrating it with NIMS, institutional arrangements, building capacity for government officials, national focal points (such as for the GHG inventory, nationally determined contributions and other mitigation actions, REDD-plus, etc.) and other stakeholders;
- (c) Enhancing capacity for assessing and quantifying the impacts of mitigation actions at the state level;
- (d) Improving the capacity of government ministries and other agencies to provide sectoral information and other inputs for reporting on a continuous basis;
- (e) Developing a dynamic training plan for existing, new and upcoming technical experts involved in the reporting process;
- (f) Enabling better coordination among relevant regions and institutions to design, implement and measure, report and verify a REDD-plus system;
- (g) Identifying the most appropriate methodologies to develop progress indicators to facilitate reporting the progress of the implementation of mitigation actions, including emission reductions.

These gaps persist and are reiterated in the BUR2. In a country like India, the requirements in capacity cover a vast range including technology assessment, technology identification, adaptation to local context and diffusion, preparation of detailed emission inventories and updating EF for the Indian context and much more. A significant upgrade

of capacity in this context remains one of the foremost challenges, yet to be adequately met. The Government of India attaches great importance to knowledge creation and capacity building for climate change.

All the above suggestions from the technical analyses are being taken into consideration and incorporated in the subsequent NC/BUR work to the extent possible. The recommendations from the review of the BUR2 and BUR3 within the ICA cycles shall be taken into consideration while implementing the 4NC/BUR4/BTR1, and the compliance shall be presented in future reports.

The implementation of project activities by India is expected to generate global environmental benefits through the reduction of GHG as well as the reduction of vulnerabilities and increment of resilience related to climate change impacts. The expected outcomes of this project can serve as important inputs to a better understanding of mitigation and adaptation challenges in India. The inventory of GHG sources and sinks, can also lead to more efficient policies, new legislations at federal and state levels. Therefore, the project has the potential to assist the country in moving towards less carbon-intensive and more sustainable energy consumption paths.

PROJECT STAKEHOLDERS

The stakeholders of the project are the scientific community from research institutions such as universities, the institutions of the ministry of earth sciences, science and technology institutes such as the Council of Scientific and Industrial Research, Indian Council for Agricultural Research of the Ministry of Agriculture, Indian Institutes of Management and Technology. In addition, the line ministries and government departments relevant for climate change mitigation and adaptation at the state, district levels and local level decision making bodies (Panchayati raj institutions) will be involved in the process. Participation will also be sought from other stakeholders including civil society groups, community based organizations and other policymakers as appropriate.

| Stakeholder | Key function | Project engagement and specified roles |
|---|---|---|
| Ministry of Environment, Forest and Climate Change (MOEFCC) | Nodal ministry under the Government of India for coordination and management of climate change related programmes, actions and National Communication to UNFCCC | <ul style="list-style-type: none">· The MOEFCC will be better equipped to provide information for the chapters related to National Communication, GHG emissions from LULUCF and Forestry. |

| | | |
|--|--|--|
| State Focal Points | To prepare state-level action plans by extending and complementing national action plans on climate change. To report state priorities to the MOEFCC through SAPCC | <ul style="list-style-type: none"> · They will continue to act as a state level focal point. · They will provide relevant inputs to the MOEFCC through the proposed national coordination system · They will also report capacity related challenges, gaps and associated needs |
| Ministry of Coal (MoC) | Provide official information on the production and supplies of coal across the end-use sectors primarily at the national level. | <ul style="list-style-type: none"> · They will continue data collection and support analysis on inventories, mitigation, NDCs on new templates suited to establishment of improved reporting. |
| Ministry of Petroleum and Natural Gas (MOPNG) | Provide official information on the production and supplies of liquid and gaseous fuels across the end-use sectors primarily at the national level. | |
| Sectoral Focal Points comprised of subject specific ministry/public departments | Provide official information on the end-use consumption of energy and progress with sector specific mitigation/adaptation targets. | <ul style="list-style-type: none"> · They will support the implementation of mitigation and adaptation activities related to building capacity towards improved monitoring, reporting, and verification of information |
| Academic and Research centres; Laboratories of the Council for Scientific and Industrial Research (CSIR) | Conduct scientific studies and assist in improvement of measuring and tracking emissions through various sources. Example: Central Institute of Mining and Fuel Research (CIMFR), National Environmental Engineering Research Institute (NEERI), Technology Information Forecasting and Assessment Council | <ul style="list-style-type: none"> · They will strengthen institutional capacity towards monitoring, reporting, and verifying progress with NDCs and emission tracking. · Updating emission factors and other parameters on a periodic basis · Developing capacity to report at tier-3 level of GHG inventories |
| National Institution for Transforming India (NITI Aayog) | NITI Aayog India has been entrusted the nodal role of overseeing the implementation of the 2030 development agenda for Sustainable Development Goals (SDGs). | <ul style="list-style-type: none"> · They will assist in evaluating cross-sectoral policies through the lens of sustainable development and climate change goals. |

| | | |
|---|---|--|
| Ministry of Statistics and Programme Implementation (MoSPI) | The Ministry of Statistics and Programme Implementation covers quality aspects of statistics released in the country. | · They will provide data sets based on current data, after applying standard statistical techniques for assessments |
| Non-governmental Organisations (NGOs) | Conducting independent assessment of government policies and schemes and suggesting improvement measures | · They will find representation through proposed <i>lead agencies</i> and <i>experts</i> · Their capacity would further boost the climate reporting process |
| Private sector (Industry and/or Industry associations) | They play a very crucial role in the overall economic, social and environmental ecosystem of the country. They are the ultimate point source of information and bringing innovative reforms towards deep decarbonisation. | · They will find adequate coordination with the state focal point, sectoral focal points, lead agencies, the MoEFCC and other relevant stakeholders for information management and assessment of mitigation potential through technology and process reforms |
| Local and indigenous Community | Represent rural and vulnerable population of India whose livelihood will be impacted due to adversities of climate change | · Their involvement and sensitisation would ensure smooth functioning and improvement with data collection |

GENDER EQUALITY

The update of the National Circumstances chapter of the 4NC/BUR4/BTR1 will consider gender-disaggregated data where possible in order to better understand how the different roles of men and women in social and economic circumstances may affect India's ability to deal with climate change.

Project will use following guidance:

- UNFCCC Gender Action Plan
- Guidance to advance gender equality in GEF projects and programs
- Gender Responsive National Communications Toolkit

During the PPG phase, project will recruit Gender Specialist to prepare and finalize Gender analysis and Gender action plan and develop gender responsive results based framework. The engagement strategy for women and vulnerable groups will be designed to ensure gender and vulnerable community dimensions are adequately addressed.

Gender analysis will also follow the structure of five priority areas of UNFCCC Gender Action:

- Capacity building, knowledge sharing and communications

- Gender balance, participation and women's leadership
- Coherence
- Gender responsive implementation and means of implementation
- Monitoring and reporting.

An initial stocktaking and gender analysis across all areas – and inclusion of stakeholders who understand gender issues in relation to their sectors – will be conducted in course of 4NC/BUR4/BTR1 preparation to assess and understand where deeper analysis and action is required to make the overall NC/BUR reports more credible, realistic and sustainable.

C. DESCRIBE THE ENABLING ACTIVITY AND INSTITUTIONAL FRAMEWORK FOR PROJECT IMPLEMENTATION

Discuss the work intended to be undertaken and the output expected from each activity as outlined in Table A

DESCRIPTION OF THE ENABLING ACTIVITY AND MAJOR COMPONENTS

The Project activities would enable India to meet the obligations under the UNFCCC as well as addressing global climate change concerns in particular mitigation, adaptation and technology transfer. This will ultimately enable India to shift to a low carbon and sustainable development path keeping in mind the primary goals of economic development and conservation of environment and natural resources. The proposed project involves the following major components:

Component I: Information on national circumstances and institutional arrangements relevant to the preparation of the national communications (4NC, BUR4 and BTR1), related financial, technical and capacity needs and other relevant information

Under this component, a Report on National Circumstances will be prepared. The report will include both National and Regional Development Priorities including the development of indicators to assess the sustainability of the National Communication process in the country, and a report about special circumstances, including the special needs and concerns arising from the adverse effects of climate change and/or of the implementation of response measures.

India will be able to highlight its development priorities, policies and programmes at national and state level with focus on climate change including gender. One of the focus area of this project will be on establishing gender balanced institutional structure relevant to the periodic conduct of GHG inventory. Additionally, national circumstances and institutional arrangements relevant to the progress made in implementing and achieving NDC targets under Article 4 of Paris Agreement will be factored in the report. This will include information on how the national circumstances affect GHG emissions and removals over time. National circumstances relevant to adaptation actions, mitigation actions and technology, finance and capacity support will also be documented.

India as a country needs to undertake balanced mitigation and adaptation measures. Various institutions in India at the national and regional levels undertake a variety of responsive actions to combat climate change. However, a detail analysis on capacity constraints, gaps and related financial, technology and capacity building needs for overcoming the gaps and constraints is required. This component will support in identifying constraints, gaps and related financial, technology and capacity building needs. Information will also include on transfer of, and access to, environmentally sound technologies and know-how, the development and enhancement of endogenous capacities, technologies and know-how, and measures relating to enhancing the enabling environment for development and transfer of technologies.

This component will also support an assessment of gaps, needs and priorities for education, training and public awareness important for stakeholders' involvement in the preparation of national reports, including the information on education and public awareness activities relevant to Article 6. The project shall sensitize and impart training on climate change impacts and adaptation actions for officials at all levels in the identified Ministries/departments.

Awareness among common people is an essential element of the global response to climate change. It helps people understand and address the impact of global warming, increases climate literacy among people, encourages changes in their attitudes and behaviour, and helps them adapt to climate change related trends. The project shall support public awareness campaigns on climate change and facilitates dialogue and exchange of experiences on climate change through organizing seminars and workshops. It will develop resource materials on best practices to enhance awareness among businesses, Civil Society Organizations (CSOs), healthcare specialists, journalists, students, researchers etc.

While the implementation of climate strategies is the responsibility of the individual sector departments, the nodal agency for the implementation of the State Action Plan on Climate Change (SAPCC) in each state is expected to play a coordinating and guiding role. The project's interventions will strengthen coordination mechanisms of the nodal agencies for improved planning and implementation of climate change strategies and actions across departments at the state level for implementation of their SAPCCs.

This component will also map all information on support needed and received for implementation of Article 13 of the Paris Agreement and transparency-related activities including capacity building. The component will help to match the existing capacity needs and how the support received by India is helping to align with the current Nationally Determined Contributions (NDC) and Enhanced Transparency Framework (ETF).

Component II: Increasing national capacity on GHG Inventory as per 2006 IPCC guidelines or any subsequent version or refinement of the IPCC guidelines

The second BUR submitted by India captured India's emission of 2.607 billion tonnes of CO₂ equivalent of GHG in 2014. Highest from the energy sector (73% of total emission) followed by agriculture (16%), industries (8%) and waste (3%). 12% of the country's emission were offset by the carbon sink action of forests, crop land and settlements. The inventory covers six GHGs such as carbon dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons (HFCs), Perfluorocarbons and Sulfur Hexafluoride. These are calculated under categories such as energy, industrial processes and product use (IPPU), agriculture Land Use, Land-Use Change and Forestry (LULUCF) and waste. India has used Revised 1996

IPCC Guidelines and also the 2006 IPCC guidelines for GHG Inventories to the extent possible. The second BUR highlighted that India's compounded annual growth rate of emission between 2010 and 2014 was merely 5% - an indication that the country has well been on path to meet its goal under the Paris Agreement on climate change.

The Team of Technical Experts (TTE) during ICA process identified the capacity-building needs related to the facilitation of the preparation of subsequent national communications on estimating and reporting of GHG inventories:

(i) Estimating and reporting HFC, PFC and SF6 emissions from, for example, air conditioning and refrigeration and the electronics industry and electrical equipment; (ii) Estimating and reporting CO, NOX, NMVOC and SOX emissions; (iii) Training on verification techniques for the reported emissions of key source categories; (iv) Establishing a long-term institutional and operational system for periodic, continuous and enhanced GHG emission estimation for national reporting under various UNFCCC reporting requirements (i.e. a national inventory management system); (v) Enhancing the GHG inventory by migrating to higher-tier levels in all sectors; (vi) Modelling for tier 3 estimation of emissions and removals in the LULUCF sector;

Technical analysis for India's BUR2 is completed and the report was published on UNFCCC website on 2nd October 2019. The FSV is due in December 2019. In its technical analysis report, the TTE commends India for improving the national GHG inventory, applying higher-tier methodologies and country-specific EFs and making continuous efforts to further improve the quality of the inventory for the relevant sectors and to enhance transparency of the information reported.

The upgradation of the emission inventory system is a dynamic process, and sustained efforts are being made to ensure that India's GHG emission inventory is of high quality, transparent and consistent with the requirements of the IPCC inventory guidelines.

The Third NC and BUR reports, currently, under preparation will provide an update of GHG Inventory up to 2016 year covering Energy, Industrial Processes and Product Use (IPPU), Agriculture, Land Use, Land-Use Change and Forestry (LULUCF) and Waste sectors using a combination of methods from the Revised 1996 and 2006 IPCC guidelines.

The objective of this component under this project is to refine and update the Inventory of Anthropogenic Emissions and Removals of Greenhouse Gases and to extend its coverage to the 2010 to 2022 period in an annual basis, as well as the strengthening of the national structure established for the estimation of GHG. It will focus on the sectors/gases that have either a significant share of the emissions or present a large degree of uncertainty, or both, taking in consideration the efforts required to improve the estimates.

Under this project, the GHGI will be updated up to 2018 for BUR4, up to 2021 for BTR1 and the Fourth NC will present the GHGI up to 2022 year covering Energy, Industrial Processes and Product Use (IPPU), Agriculture, Land Use, Land-Use Change and Forestry (LULUCF) and Waste sectors.

The project will develop institutional capacity for full transition and adoption of the 2006 IPCC guidelines, including capacity building for subsequent revision, and quantitative estimates for all source and sink categories. Under this project, activity data flow systems will be strengthened to report on GHGs additional to CO₂, CH₄ and N₂O which are F-gases included in MPGs of ETF. In addition, the project will also account other gases such as precursor gases, indirect CO₂ and indirect N₂O that are to be reported as part of the BTR under the ETF.

The development of a national inventory is a resource-intensive undertaking and priorities were established for refining estimates of emissions only for the main sectors and gases, because the estimation methodology and data quality can improve with time. By project end, an updated emission inventory will be available, providing a continuous basis GHG emission data by sectors as well as trends. Moreover, the 4NC/BUR4/BTR1 will further develop the quality control and quality assurance procedures for the information and data used.

In preparation of the previous two NCs and BURs, India has used both global default and country-specific emission factors. For estimating tier I emissions, global default emission factor was used and for tier II country specific emission factor was used. Under SNC fuel wise emission factor was derived. Under TNC emission factor of fuels are being derived sector wise. Deriving emission factors is a continuous process, refinement of emission factors for grades of fuel will be attempted under the proposed project. This will lead to uncertainty reduction in overall inventory preparation. Under the proposed project, a national emission factor database would be developed/revised/updated for key sources and country specific emission factors as per different IPCC inventory key sector categories that belong to different sectors, regions based on field studies; laboratory measurements; and, surveys of industries, municipalities, households, farms etc. The database would be validated along with uncertainty associated with the emission factors.

| Type of Emission Factor and Level of Methodological Tier Employed for Greenhouse Gas (GHG) Estimation | | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|
| Gas | CO ₂ | | CH ₄ | | N ₂ O | |
| Sector/ Category | Method used | Emission Factor | Method used | Emission Factor | Method used | Emission Factor |
| 1. ENERGY | | | | | | |
| A. Fuel Combustion Activities | | | | | | |
| 1. Energy Industries | T1, T2, T3 | D, CS | T1 | D | T1 | D |
| 2. Manufacturing Industries & Construction | T1, T2, T3 | D, CS | T1 | D | T1 | D |

| | | | | | | |
|--|--------|-------|--------|------|--------|-------|
| 3. Transport | T1, T2 | D, CS | T1 | D | T1 | D |
| 4. Other sectors | T1, T2 | D, CS | T1 | D | T1 | D |
| B. Fugitive Emission from fuels | | | | | | |
| 1 Solid fuels | | | T2, T3 | CS | | |
| 2 Oil and Natural gas | | | T1 | D | | |
| 2. INDUSTRIAL PROCESSES AND PRODUCT USE | | | | | | |
| A. Minerals | T1, T2 | D, CS | | | | |
| B. Chemicals | T1, T2 | D, CS | T1 | D | T1, T2 | D, CS |
| C Metal Production | T1, T2 | D, CS | T1 | D | T1 | D |
| D. Other Production | | | | | | |
| E. Non energy product use | T1 | D | T1 | D | T1 | D |
| 3. AGRICULTURE | | | | | | |
| A. Enteric Fermentation | | | T1, T2 | D,CS | | |
| B. Manure Management | | | T1 | D | T1 | D |
| C. Rice Cultivation | | | T2 | CS | | |
| D. Agricultural Soils | | | | | T2 | CS |
| F. Field Burning of Agricultural Residues | | | T1 | D | T1 | D |
| 4. LULUCF | | | | | | |
| A. Forestland | T2 | CS | T2 | D/CS | T2 | D/CS |
| B. Cropland | T2 | CS | | | | |
| C.Grassland | T2 | CS | | | | |

| | | | | | | |
|---|--------|-------|--------|-------|--------|-------|
| D. Settlement | T2 | CS | | | | |
| 5. WASTE | | | | | | |
| A. Solid waste disposal on land | | | T2 | D, CS | | |
| B. Waste-water handling | | | T1, T2 | D, CS | T1, T2 | D, CS |
| Memo Item (not accounted in total Emissions) | | | | | | |
| International Bunkers | T1 | D | T1 | D | T1 | D |
| CO2 from Biomass | T1, T2 | D, CS | | | | |
| T1- Tier 1; T2- Tier 2; T3- Tier 3; CS- Country Specific; D- IPCC Default | | | | | | |

National Institute on Climate Change Studies and Actions (NICCSA) is envisaged to be the nodal agency for climate change in India. The Union Cabinet has already approved the establishment of the institution. National Inventory Management System (NIMS) is one of the components under NICCSA. Under the current Third National Communication project a platform to collect data from industries especially Medium Small and Micro Enterprises has been developed for IPPU sector. A pilot platform has already been launched and is active. This project will build on the existing platform for widening the coverage and bringing all sectors under the ambit of NIMs.

Under the current Third NC project a study on QA/QC procedures for inventory is being conducted for which report is awaited. The QA/QC procedures will communicate who will be responsible for which task at a specific time in the inventory cycle. This project will build on the outcomes of the initial study following IPCC latest guidelines for key categories and individual categories in which significant methodological changes have occurred.

Based on the experience and capacity built during the previous NC/BUR preparations, Tier II and III methods and models will be adopted for the formulation of the 4NC, BUR4 and BTR1. During the preparation of the second BUR, India was able to cover Tier II emissions for some sectors and sub sectors outlined in the table below.

Under this project, India plans to ride tier ladder (essentially tier II and III) using key category analysis and uncertainty assessment which requires new and incremental technical, financial and capacity support. This would involve development, validation and application of models for different sectors and regions. Graduation to Tier II and III would potentially lead to reduction of uncertainties and complete estimation of inventory for all the relevant IPCC inventory categories for India. Therefore, activities shall focus on identifying appropriate climate models, data needs and sources for undertaking impact studies.

The latest IPCC guidelines and good practice guidance recommended by the UNFCCC would be adopted. Moreover, the scientific and methodological improvements suggested in the IPCC GHG Inventory Guidelines-2006 and any subsequent revisions would be followed.

Component III: Vulnerability, Impact and Adaptation

The objective of this component is to further assess the country's anticipated climate change impacts and the most vulnerable sectors and areas with the help of latest climate models as a basis to define priority adaptation measures and policies. This component will support the elaboration of socio-economic scenarios for India and of vulnerability and impact assessments for different climate change scenarios, based on ensemble and downscale of climate models conducted under the proposed project.

As part of the ongoing Third National Communication project, climate prediction based on best available information is being carried out. Sector specific impact assessment models are being used. These impacts and the corresponding adaptation strategies will be used to prepare adaptation framework relevant to sectors and regions. Economic cost of impact and adaptation is also being assessed. For better planning of adaptation strategies, India will need to undertake assessments at sub-sectoral level.

The proposed project intends to drill down into these sectors that are part of the TNC process and in addition, new sectors will be identified for assessment. For example, species/group of species being affected by climate change in the biodiversity sector will be studied. Geo-referenced vulnerability maps indicating vulnerability indices of regions will be prepared and collated to develop a vulnerability atlas. India has declared a dedicated goal on adaptation in vulnerable sectors like agriculture, water resources, Himalayan region, coastal regions, health and disaster management in its NDC. This component will support India in tracking progress against this particular goal. As part of the ETF requirements, the adaptation measures are also required to be monitored and the results need to be documented and reported to UNFCCC. The proposed project will document the benefits from the adaptation measures being implemented in India.

Impacts: This component will help Government of India to develop and apply advanced models to profile climate variability at district level, develop climate variability maps and document climate scenarios (short-, medium-, and long-term) based on Multiple Global climate models (GCM) / Regional Climate Models (RCMs) and climate change parameters at RCM grid level. The project will develop multiple impact assessment models for adoption and spatial vulnerability profiles in GIS format at district level based on vulnerability indices for different sectors, sub sectors at district covering parameters such as, cropping system and watershed level

Vulnerability and Adaptation: This component would undertake improved assessment of climate change impacts and vulnerability of different sectors such as Himalayas and Glaciers, water resources, forest and biodiversity, agriculture, food and livelihood, infrastructure and other cross cutting issues including gender at decentralized level as well as development of adaptation strategies and practices. Multiple climate model projections using CORDEX data and multiple sector specific impact assessment models would be adopted for realistic assessment of climate change impacts. The project will support customization of international models with inclusion of parameters specific to India and development of indigenous models for assessing climate change impacts. The project will also support uncertainty reduction through improved models and collection of more accurate data/information required as inputs to these models. Vulnerability profiles would be developed at district level to enable mainstreaming adaptation into developmental programmes and projects. The project will document ranking of most vulnerable natural ecosystems, crops, and water resources at district level for India suggesting adaptation framework describing measures currently implemented and adaptation action plans, including strategies for implementation and project profiles for key adaptation options.

Component IV: Mitigation actions and domestic MRV

In the SNC and BUR 1, India gave detail description of the mitigation actions. In BUR2, along with detail description, India quantified the mitigation action in terms of emission reduction. The detail description along with quantification will also be carried out in the TNC. In the proposed project, with an enhanced capacity, India plans to project the emission reduction potential in future years for its actions and policies. In the proposed project, an updated protocol for defining baseline and MRV of GHG specific mitigation actions will be developed and capacity of individuals (equal share of men and women) will be built on protocols for defining and use of MRV baseline.

India has made efforts at the Central and State levels to establish MRV systems for specific programmes and projects for specific parameters and not GHG mitigation directly. Perform Achieve and Trade (PAT), Renewable Purchase Obligations (RPO) and other demand side management programmes are some of the mitigation programmes which have seen significant success in their implementation. Establishing an integrated domestic MRV system for GHG mitigation actions is a capacity building need for India.

As identified by TTE in Technical Analysis summary report of BUR2, India would require an integrated domestic MRV system with associated data management system for tracking emissions, mitigation actions and support (climate finance, technology transfer and capacity-building). This including an enhancement of technical capacity for developing the requisite tools (e.g. procedures, guidelines, rules) for MRV, where applicable.

The project will document key national climate change mitigation policies and project improved future GHG emission scenarios using sector specific models for inventory sectors (energy, IPPU, waste, LULUCF, agriculture) for mapping of more up-to-date information for the period specified by para 95 of Annex to decision 18/CMA1. The project will contribute to National climate change mitigation action plan and state level climate change action plans. The project will undertake technology needs assessment (TNA) for different sectors such as renewable energy, energy efficiency, waste handling, industrial processes, transport and document the detailed information of key mitigation-adaptation technology needs, availability of those technologies in the country, national R&D programs, implementation & monitoring of activities, technology transfer needs, and financial

support needed along with limitations. Gap analysis and constraints pertaining to (a) access to technologies and technology transfer arrangements, (b) financial assistance needed for technology transfer and capacity development, and (c) investment requirements for mitigation measures based on the national and state climate change action plans.

Under this component, work on the NDC as well as on several national missions under NAPCC aimed at mitigation of climate change and their implications for mitigation would also be presented. The Third National Communication project is supporting development of the roadmap for implementation of NDC goals 3, 5, 7 and 8. This project will support tracking of implementation of NDC goals in a regular manner.

It is necessary to identify and evaluate existing policies/measures/programmes/projects both at the national and state levels that are focusing of climate change mitigation and adaptation. In addition to national missions, state level action plans for climate change aimed at mitigation of climate change would be assessed and incorporated in the report. Also it is required to identify institutions and models that can be used to develop projection scenarios of GHG emissions.

Component V: Fourth National Communication, Fourth BUR and First BTR Prepared, submitted and disseminated

Draft National Reports (4NC, BUR4 and BTR1) would be prepared and presented at workshops to seek the opinion of different stakeholders particularly research organizations and Government Ministries. Apart from the required components of NCs (National circumstances, GHG inventory, vulnerability and adaptation etc.), the descriptions of the NC process/methodology followed, activities and participation of different organizations would be included in the National Communication. After the expert consultations, the National Communication would be finalized and submitted for Government of India approval, and the approved document would be finally submitted to UNFCCC. For BUR, the project will prepare additional chapter on domestic MRV arrangements. The BUR will not contain dedicated chapter on vulnerability and adaptation as prescribed by ANNEX-3 decision-2/CP.17 of UNFCCC. For BTR, in addition to chapters outlined in NC, information related to tracking the progress of implementation of NDCs will also be added. In BTR, GHG inventory will be submitted in form of National Inventory Report.

A number of technical reports, such as the GHG inventories, V&A adaptation assessments at the sectoral level, key policy issues relevant for decision making, brief and summaries of the key climate changes issues and findings at the district level in collaboration with the local institutions/government involved.

This component aims at building institutional capacity in India for promoting and cooperating in education, training and public awareness related to climate change. This component includes also a public awareness strengthening effort that seeks to disseminate the generated data and the preliminary and final results throughout the project duration to all relevant stakeholders.

The Fourth BUR will be compiled and is expected to get submitted to the Conference of the Parties in the United Nations Framework Convention on Climate Change by Dec 2022, the First BTR in 2024 and Fourth NC in 2025 year.

INSTITUTIONAL FRAMEWORK FOR PROJECT IMPLEMENTATION

This project is to be implemented by the Ministry of Environment Forest and Climate Change (MoEFCC), Government of India as the Project Executing Entity (Implementing Partner in UNDP terminology). The MoEFCC will assume full responsibility and accountability for the effective use of resources and the achievement of the project outcomes and outputs at all levels as will be outlined in the project document.

For preparation of National Communications on a continuous basis, the Government of India has taken steps and made efforts towards creating sustainable institutional arrangements. Preparation of the BUR required comprehensive study, technical as well as administrative arrangements and stakeholder's participation in various tasks and activities. To ensure adequate attention and participation, a National Steering Committee (NSC) under the chairmanship of the Secretary, MoEFCC is in place that oversees the preparation and implementation of the work programme of BUR. The line ministries and government departments that are most concerned with different elements of information have representation in the National Steering Committee.

For the preparation of National Communications including the BURs, MoEFCC established National Communication (NATCOM) Project Management Unit/ NATCOM Cell, that comprises Programme Officers who assist the National Project Director in the compilation of information for the communications. The institutional structure for the ongoing GEF funded project on Third National Communication is given below. The same institutional arrangement will be followed for this project.

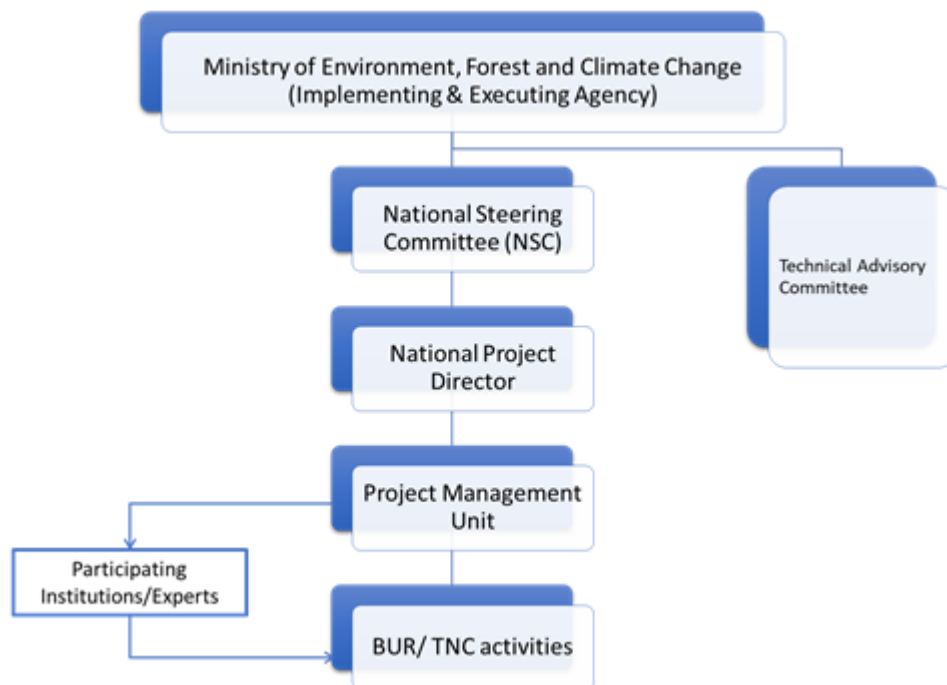


Figure: Institutional structure

The institutional and analytical capacities developed under this project will be fully linked to many of the ongoing efforts in India aimed at promoting mitigation and adaptation strategies, and consistent with the NDCs, NAPCC, Paris Agreement etc. The 4NC, BUR4 and BTR1 will be prepared involving all the relevant ministries and a large network of national institutions spread across India. The project will build synergies with the recently approved PIF on Capacity Building Initiative on Transparency (CBIT). This project will support the gaps being studied under CBIT project for compliance with ETF regime and identifying suitable measures for better preparedness of India on transparent information sharing.

UNDP, as the implementing agency, will provide the quality assurance and oversight function. An Agency fee (GMS) for project cycle management services will be provided. The fee will cover the quality assurance and oversight services involved with preparation of project concept, preparation of detailed project document, project approval and start-up, project implementation and supervision, and project completion and evaluation.

The project activities will be executed by the MoEFCC. Upon specific request of the GEF Operational Focal Point and the Implementing Partner, UNDP support services related to the procurement of goods and services, HR, logistics, etc. may be requested to support the project during its implementation. The need, capacity constraints and possible options will be discussed with key stakeholders and duly assessed during the PPG phase. The nature and cost of these services will be identified, justified and documented in the CEO Endorsement Request document for GEF review and approval. A request letter, signed by the GEF OFP and the Implementing Partner (IP), and the UNDP LOA (letter of Agreement), signed by the Resident Representative and the Government/IP will be fully completed, and attached to the UNDP-GEF Project document.

The project will follow standard UNDP – GEF guidelines for monitoring and evaluation and in addition, the requirements of the implementing agency. Hence, regular reporting at the intended intervals, an independent Mid-Term Review (MTR) at the mid-point of project period for determining the project's progress being made toward the achievement of its outcomes will be part of the process. An independent Terminal Evaluation (TE) will take place three months prior to the final PSC meeting and will be undertaken, again in accordance with UNDP and GEF guidance policies. The TE will focus on the delivery of the project's results as initially planned (and as corrected after the MTR, if any such correction took place).

D. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT

A central element of the strategy to enhance the cost effectiveness of this project is the capitalization on institutional networks and working relations built during the INC, SNC and TNC process. Cost effectiveness will be ensured by coordinating and leveraging outcomes of other GEF funded projects. This project will access information being generated from the GEF funded CBIT work. The project will benefit from the administrative capacity, technical expertise, and institutional competence being developed by the CBIT project to ensure adequate implementation of the Paris agreement. The 2 projects will be implemented in close cooperation to enhance synergies and avoid duplication of efforts. The databases already developed using INC, SNC and TNC will be used, duly validating them for completeness, consistency and accuracy of time series inventory assessments. Similarly, the climate modelling, sectoral and regional impact assessments capabilities developed during INC, SNC and TNC will be used as baselines for a deep-dive into detailed sub-regional integrated assessments.

The Project will also leverage existing capacities developed during the process of previous National Communication preparation. The project will strengthen the existing capacities under the components mentioned above and to add value, where appropriate and possible, to existing initiatives by the government for compliance of guidelines proposed under international conventions on climate change reporting.

The National Communication proposal does not necessitate co-financing from the host country. However, India's commitments has been captured through the ongoing investments and efforts on research activities for producing information which this project will access.

The Project design contains several elements that will ensure sustained impact beyond the Project lifetime which India will use for integrated planning and implementation of its policies and programmes. These include: 1) Transformational change towards cross-sectoral analysis for integrated reporting to UNFCCC. 2) Institutionalized participatory approaches of data collection and analysis for emissions using higher tier methods 3) Enhanced capacity to use appropriate UNFCCC guidelines on reporting 4) Customized/indigenous models for impact assessment 5) adaptation planning based on sub-sectoral and regional climate change impact assessment 6) pool of experts on data collection, analysis, modelling and reporting. The project will help India scale up climate actions at domestic level with enhanced understanding of complex interlinkages of climate change impacts. The tools developed through the project will support to undertake assessments for planning and implementation of key mitigation and adaptation policies and programmes. The project will support the initiatives that have the potential to be scaled up as full programmes and activities in the domain of inventory preparation, mitigation action and adaptation.

E. DESCRIBE, DESCRIBE THE BUDGETED M & E PLAN

| Type of M&E activity | Responsible Parties | Budget US\$ | Time frame |
|---|---|---|---|
| Inception Workshop and Report | § Project PMU | § Indicative cost: USD 20,000 | Within first two months of project start up |
| Development of M&E system | § Project PMU, MoEFCC | § None | At the beginning of project implementation |
| Measurement of Means of Verification of project results. | § NPD will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members. | § To be finalized in Inception Phase and Workshop. | Start, mid and end of project (during evaluation cycle) and annually when required. |
| Measurement of Means of Verification for Project Progress on <i>output and implementation</i> | § Oversight by Project Manager § Project team | § To be determined as part of the Annual Work Plan's preparation. | Annually prior to ARR/PIR and to the definition of annual work plans |
| PIR | § Project manager and team § UNDP CO § UNDP RTA | None | Annually |

| Type of M&E activity | Responsible Parties | Budget US\$ | Time frame |
|--|--|--|--|
| Periodic status/ progress reports | § NPD and Project team | § Part of PMU cost | Quarterly |
| Mid-term Evaluation | § Project management team § UNDP CO and UNDP RTA § External Consultants (i.e. evaluation team) | § Indicative cost: 50,000 | At the mid-point of project implementation. |
| Final Evaluation | § Project management team § UNDP CO and UNDP RTA § External Consultants (i.e. evaluation team) | § Indicative cost : 50,000 | At least three months before the end of project implementation |
| Audit | § UNDP CO § Project management team | § Indicative cost per year: 4,000 (total US\$ 20,000) | Yearly |
| Visits to field sites | § UNDP CO § UNDP RTA (as appropriate) § Government representatives | § For GEF supported projects, paid from IA fees and operational budget | Yearly |
| TOTAL indicative COST | | US\$ 140,000 | |
| Excluding project team staff time and UNDP staff and travel expenses | | (+/- 5% of total budget) | |

F. EXPLAIN THE DEVIATIONS FROM TYPICAL COST RANGES (WHERE APPLICABLE)

Not applicable

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

| Name | Position | Ministry | Date |
|------------------|---|--|----------|
| Ms. Richa Sharma | Joint Secretary and GEF India Operational Focal Point | Ministry of Environment, Forest and Climate Change | 2/3/2020 |

B. Convention Participation

| Convention | Date of Ratification/Accession | National Focal Point |
|------------|--------------------------------|---|
| UNFCCC | 1/11/1993 | Mr. Ravi Shankar Prasad, Additional Secretary, The Ministry of Environment, Forest and Climate Change |