Terms of Reference
Analysing the Indian Research Landscape in Climate Change Sector: matrix development aligned with NDC

1. Background

Climate change is recognised as a key global and national challenge by the Government of India - as evident in the *National Action Plan on Climate Change* (NAPCC) the subsidiary *State Action Plans on Climate change* (SAPCC), as well as *Nationally Determined Contributions* (NDCs). With the submission of the NDCs to the *United National Framework Convention on Climate Change* (UNFCCC) in 2015, there is an increased need to develop the necessary capacities to implement these commitments. The *Ministry of Environment, Forest and Climate Change* (MoEFCC) plays a key role in the NDC implementation process; and therefore, requires strengthened capacities to process relevant expert knowledge, formulate effective policy, put it into practice and monitor results. At the same time, the exchange of Indian research on climate change impacts and action needs to be enhanced.

2. Objective of the project

The project *"Supporting the Institutionalisation of Capacities on Climate Change Studies and Actions*" (ICCC), implemented by the MoEFCC and GIZ, aims to develop capacities in the areas of climate protection, resilience and NDC implementation as well as transdisciplinary issues. The project will further promote network-building with relevant stakeholders, create links with national and international research institutions and support the establishment of a publicly available knowledge platform. To assist strengthening the capacities of the MoEFCC, the project will develop three frameworks/overview mappings. First, all institutions working in the fields of NDC implementation related to science, policy and practice/implementation will be mapped.
Secondly, Institutions working on Climate Change and NDC implementation related Capacity Building and Development will be identified.
And thirdly the Research Landscape working on NDC topics in five priority areas will be analysed.

In the context of the third framework, GIZ invites proposals for the assignment "*Analysing the Indian Research Landscape in the Climate Sector: matrix development aligned with NDC".*

3. Scope and objective of the assignment:

India is one of the top-ranking countries in the field of Climate Change related research. Nevertheless, there are still gaps in the research fields of **NDC implementation measures**. This assignment is meant to analyse the Indian research landscape and identify gaps in view of India's NDCs in particular in the following fields:

(i) Reduction of emissions intensity;
(ii) Renewable energy;
(iii) Forestry: creation of carbon sinks;
(iv) Adaptation particularly in agriculture and water resources;
(v) Sustainable lifestyles

For the matrix development aligned with NDCs in these fields the following structure should be applied:

1) Main research topics (*What*);
2) Key actors on the research field (*Who*);
3) Research approaches/methods (*How*).

Methodologically, the analysis should be based on literature review and web searches, visits to selected institutions and focused expert consultations.

4. Tasks & outputs

The assignment shall create a matrix of the research landscape in the five before mentioned fields (Reduction of emissions intensity; renewable energy; forestry; adaptation; sustainable lifestyles). Each topic should analyse the *what*, *who* and *how* described in the assignment objective.

Task I: Identification of research topics: What

- Collect detailed data on the research topics in each of the five fields.
- Identify in those five priority fields the five most important research topics.

Output:

- Data of five most important research topics in the five fields (5 x 5 = 25 research topics)

Task II: Identification of key actors: Who

- Collect detailed data on actors (Institutions, NGOs, Universities etc.) researching in these 25 most important research topics
- Categorise and profile key actors in the research topics

Output:

- Data of key actors working on the 25 research topics

Task III: Identification of research approaches: How

- Collect detailed data on research being done, methodology being used, funding received and networks/alliances.

Output:

- Data of research approaches

Task IV: Visualization of research landscape

- Present Task I to III in a comprehensive matrix

Output:

- Matrix of Indian research landscape aligned to NCD implementation

NOTE: Task I to III should be considered together. The table below illustrates an example to help understand the expected outcomes and should only be used as reference. This is for only one of the five priority research fields, and should be done for all 5 (i – v) fields.

What	Who	How
(i) Emission intensity reduction →5 main research topics:	**(i) Emission intensity reduction** **Align institutions on 5 topics:**	**(i) Emission intensity reduction**

1) e.g. Life-cycle assessment 2) e.g. Greenhouse gas emissions 3) e.g. Carbon intensity 4) e.g. Air pollutants 5) e.g. Emission reduction strategies	→ Institution x → Agency y → NGO z → University xx	**Institution x:** Methodology, Funding, Networks/Alliances **Agency y:** Methodology, Funding, Networks/Alliances **NGO z**: Methodology, Funding, Networks/Alliances **University xx:** Methodology, Funding, Networks/Alliances
(ii) Renewable energy **…**	**(ii) Renewable energy** **…**	**(ii) Renewable energy** **…**
(iii) Forestry **…**	**(iii) Forestry** **…**	**(iii) Forestry** **…**
(iv) Adaptation **…**	**(iv) Adaptation** **…**	**(iv) Adaptation** **…**
(v) Sustainable lifestyles **…**	**(v) Sustainable lifestyles** **…**	**(v) Sustainable lifestyles** **…**

5. Deliverables with timeline and format of delivery

Task	Deliverable	Timeline	Number of days
Task I	- Inception meeting and plan of strategy to carry out activities - Data of five most prominent research topics in the five fields	November18-December 2019	Up to 60 days
Task II	- Data of key actors working on the 25 research topics	January - February 19	Up to 50 days
Task III	- Data of research approaches	March- April 2019	Up to 50 days
Task IV	- Matrix of Indian research landscape - Finalisation Synthesis report/Matrix	April-May 2019	Up to 30 days

6. Timeline and place of assignment: 168 person days between November 2018 - May 2019

7. Travel: Travel for Research, Data collection, Consultations for the assignment needs to be considered across the country. The travel for individual personnel would be as follows:

Personnel	Number of Persons	Number of Trips	Days involved
Team leader	1	2	2
Coordinator	1	2	2
Technical Expert	2	8	2
Documentation Expert	1	2	2

8. Required qualification/ experience for the consulting agency/consortium:

a. Agency/consortium should have following administrative and financial requirement in conducting the assignment:

- Average annual turnover for the last three financial years should be at least 150,000 Euro.
- Number of employees as at 31.12.2017 should be at least 10 persons.
- Agency/consortium must have handled at least 3 projects (minimum commission value of Euro 50,000) on Climate Change and Natural Resource Management in India in the last three years.

b. Agency/consortium should have following experience in conducting the assignment:

- Minimum 10 years of experience and technical expertise in the field of climate change, NRM, development plans and policies and in engaging and liaising with different government and non-government stakeholders in India.
- Experience of research and development, engaging with regional, national and sub-national climate change planning process related to climate change with focus on climate proofing, adaptation planning, capacity building.
- Experience of preparing technical and policy documents on climate change, sectoral brainstorming session and capacity building programmes on various climate change and environmental issues.
- Excellent reporting and writing skills with the ability to coordinate inputs form a wide variety of sources as well as structure and synthesize the inputs.
- Necessary socio-cultural skills and working experience in India with experience of multi-stakeholder engagement.

c. The consortium should present a pool of experts with specific requirements/ responsibilities as detailed below:

- **Team Leader (1)**
  Minimum 10-12 years of experience and technical expertise in the field of climate change, national and international policy paradigm on climate change, research and development plans and policies, at national/state government and non-government/civil society stakeholders in India. CV with Advanced degree (Phd/Masters) in, Climate Change/ Natural resource management/ Economics/ Finance, or a related field. Proficiency in English and Hindi.

- **Coordinator (1)**
  At least 7-8 years of experience of working on regional, national/ sub-national planning process related to climate change with focus on climate change policy (Paris Agreement/NDCs), etc. CV with Advanced degree in Environmental science/ Climate Change/ NRM detailing expertise in research and related areas should be included. Proficiency in English and Hindi.

- **Technical Experts (2)**
  At least 5 years of experience of working on climate change, climate policy (Paris agreement/NDCs), climate projections, etc. CV of at least 2 experts with Masters degree environmental science/climate change/development studies/Economics and related areas detailing expertise should be included. Proficiency in English and Hindi.

- **Documentation Expert (1)**
  At least 5 years of experience of documentation and editing related to climate change and development issues. CV with detailing expertise in related areas should be included.

9. Supervision: The consultant will work under the direction of Director- Climate Change, GIZ, in close cooperation with I-CCC project team with overall guidance from CC Division, MoEFCC.

10. Submission Requirements

- Detailed technical and financial proposal (separated according to tasks)
- Profile of the experts and agencies/organization involved in the consortium
- Scanned copy of PAN Card
- Service tax registration number
- Scanned copy of cancelled cheque