

Terms of reference (ToRs) for the procurement of services below the EU threshold

Green Transport: Energy-Environment-Economy Implications of Transport Modal Shift in achieving NDC targets in India	Project number/ cost centre:
	14.9050.7-001.00

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1. Context

On behalf of the German Federal Minister for the Environment, Nature Conservation, and Nuclear Safety (BMU), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in India implements wide-ranging activities in the environmental sector. The project “Supporting the Institutionalisation of Capacities on Climate Change Studies and Actions” (ICCC), implemented by the Union Ministry of Environment Forest and Climate Change (MoEFCC), Government of India and GIZ, aims to develop and institutionalise capacities in the areas of climate protection, resilience and NDC implementation as well as transdisciplinary issues. A key objective of this project is to address predominant issues concerning NDC implementation and mainstream climate action by conducting joint studies involving Indian institutions and the Potsdam Institute for Climate Impact Research (PIK), Germany. It is envisaged that these joint studies will serve as models for knowledge management fuelling science-based recommendations to the MoEFCC and other line ministries in mainstreaming climate actions.

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.

The transport sector in India accounts for 15% of total energy consumption and 47% of the petroleum products’ consumption in the country. Given the dependence on imports for meeting the crude oil demand, it also plays an important role in the country’s energy security dynamics. At the same time, there is also a need to reverse the trend of increasing modal share of the road for both passenger and freight considering the energy security, climate change and air quality concerns. The current government policies are also directed towards increasing the share of rail to 40% of the total freight transport. Given the lower emissions from rail and water transport mode, several studies state that freight transport needs to shift towards railways, inland waterways and coastal shipping.

The objective of this assignment is to capture the energy-environment-economy implications of the transport modal shift towards rail under alternate scenarios. Such a modal shift can have implications for import bill, transport cost, pollution and congestion via the policy interventions such as roll-on roll-off facility on rails and dedicated freight corridors. Therefore the assignment should consider all these scenarios including the share of rail in total demand for passenger and freight transport currently and in the future while estimating the energy-environment-economy implications of the modal shift towards railways.

2. Tasks to be performed by the contractor

It is well established fact that the transportation sector emissions are significantly larger and therefore this sectoral mitigation will contribute significantly to India’s NDCs. The current government policies are directed towards increasing the share of rail to 40% of the total freight

transport. However, the subsequent economic, energy and environmental implications of such a modal shift are unclear.

The assignment shall identify the economic, energy and environment implications of modal shift from road to rail in India and its subsequent contribution in achieving India’s transport-related and overall NDC targets. It should develop a business as usual scenario to identify the current emission trends. Further, it develops modal shift scenarios based on the current trends to estimate the emission reduction and possible economic and environmental impact. The results will benefit ongoing efforts of the Ministry of Environment, Forest and Climate Change (MoEFCC) to reduce the emissions from the transport sector. Further, it is envisaged that the study will aid the Ministry of Railways (MoR) in preparing for such a gradual increase share of freight transport.

The contractor is responsible for providing the following services:

The assignment shall consist of following consecutive tasks and respective outputs:

Task I: Assessment of past and current transformation scenarios for the transport sector in India

Output:

- Estimations of energy consumptions, economic impacts under business as usual scenario up to 2050 from the transportation sector in India

Task II: Modelling scenarios for modal shift under business as usual scenario

Output:

- Estimate the economic, energy and environment changes in India as a consequence of transport modal shift scenarios up to 2050

Task III: Final Report Development

Output:

- A final report elaborating on the methodology, assessment results and key takeaways
- A policy brief which includes recommendations to the relevant line ministries – MoEFCC and MoR,
- Stakeholder consultation

The contractor is responsible for providing the following services under milestones, as laid out in the table below, are to be achieved by certain dates during the contract term:

Milestones	Deadline
1. Inception report on methodology, the background of selected geographical location, expected outcomes and use of outcomes	August 2020
2. Draft structure of the final report	October 2020
3. Final report and Policy brief developed together with PIK and Stakeholder consultation	January 2021

Period of Project : From August 2020 to January 2021.

Location of the project: The assignment should be carried for entire India. The study should analyze the transport situation in entire India including both freight and passenger traffic.

3. Concept

In the bid, the bidder is required to show how the objectives defined in Chapter 0 are to be achieved, if applicable under consideration of further specific method-related requirements (technical-methodological concept). In addition, the bidder must describe the project management system for service provision.

Technical-methodological concept

Strategy: The bidder is required to consider the tasks to be performed with reference to the objectives of the services put out to tender (see Chapter 1). Following this, the bidder presents and justifies the strategy with which it intends to provide the services for which it is responsible (see Chapter 0).

The bidder is required to present the actors relevant for the services for which it is responsible and describe the **cooperation** with them.

The bidder is required to present and explain its approach to **steering** the measures with the project partners and its contribution to the results-based monitoring system.

The bidder is required to describe the key **processes** for the services for which it is responsible and create a schedule that describes how the services according to Chapter 0 are to be provided. In particular, the bidder is required to describe the necessary work steps and, if applicable, take account of the milestones and contributions of other actors in accordance with Chapter 0.

The bidder is required to describe its contribution to knowledge management for the partner and GIZ and promote scaling-up effects (**learning and innovation**).

The bidder is required to explain its approach for coordination with the GIZ project.

Typical project management requirements

- The contractor is responsible for selecting, preparing, training and steering the experts (international and national, short and long term) assigned to perform the advisory tasks.
- The contractor makes available equipment and supplies (consumables) and assumes the associated operating and administrative costs.
- The contractor manages costs and expenditures, accounting processes and invoicing in line with the requirements of GIZ.
The contractor reports regularly to GIZ in accordance with the guidelines of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

The bidder is required to draw up a **personnel assignment plan** with explanatory notes that lists all the experts proposed in the bid; the plan includes information on assignment dates (duration and expert days) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule.

4. Personnel concept

4.1 The bidder is required to provide personnel who are suited to filling the positions described, on the basis of their CVs (see Chapter 6), the range of tasks involved and the required qualifications.

The below specified qualifications represent the requirements to reach the maximum number of points.

Team leader (2.1)

Tasks of the team leader

- Overall responsibility for the advisory packages of the contractor (quality and deadlines)
- Coordinating and ensuring communication with GIZ, partners and others involved in the project
- Personnel management within the available budget, as well as planning and steering
- Regular reporting in accordance with deadlines

Qualifications of the team leader

- Education qualification (2.1.1) . Advanced degree in environment/ economics/ climate change or a related field from a recognised and reputable institution.
- Language (2.1.2) Good business language skills in English & Hindi
- General professional experience (2.1.3): i. Minimum 15 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,
- Specific professional experience (2.1.4): Knowledge of institutional landscapes at national/state level and non-government/civil society stakeholders in India.
- Leadership/management experience (2.1.5): 6 years of management/leadership experience as project team leader or manager in a company
- Regional experience (2.1.6): Substantial regional/country specific experience on the subject
- Development Cooperation (DC) experience (2.1.7): 2 years of experience in DC projects

Expert 1 : Thematic Expert (2.2)

Tasks of expert 1

- Prepare an Inception report on methodology, a background of selected geographical location, expected outcomes and use of outcomes
- Determine and finalize the key-dependent and independent variables of the assessment framework
- Study methodology and selection/justification of the transport corridor
- Prepare a detailed report on the methodology, key indicators/variables/data needed for estimating the impacts of climate change on transport infrastructure within the selected corridor

Qualifications of expert 1

- Qualifications (2.2.1): Advanced degree in environment/ economics/ climate change or a related field from a recognised institution
- Language (2.2.2): English, Hindi
- General professional experience (2.2.3): 10 years of experience in the field of climate change impacts, and climate variability, Experience in climate change policy (Paris Agreement/NDCs), adaptation/mitigation projects
- Specific professional experience (2.2.4): 2 years technical expertise of climate modelling,
- Regional experience (2.2.6): Substantial regional/country specific experience on the subject

Expert 2 : Technical Expert (2.3)

Tasks of expert 2

- Develop risk assessment framework which includes the boundary conditions, key variables and indicators (including climatic) used in this study
- Finalise and populate the risk assessment tool after incorporating GIZ review comments and leverage the tool to perform the analysis for transport model shift.
- Estimating the impacts of climate change on transport infrastructure
- Draft policy brief with the team on energy, environment and economic implications of transport model shift as an advisory for concerned line ministries

Qualifications of expert 2

- Qualifications (2.3.1): Master's Degree in master's degree environmental science/climate change/development studies/Economics and related areas
- Language (2.3.2): English, Hindi
- General professional experience (2.3.3): 3 years of proven experience of undertaking satellite data-based and statistical analysis.
- Specific professional experience (2.3.4): Experience of climate change and environmental issues.
- Regional experience (2.3.6): Substantial regional/country specific experience on the subject

Soft skills of team members

In addition to their specialist qualifications, the following qualifications are required of team members:

- Team skills
- Initiative
- Communication skills
- Sociocultural competence
- Efficient, partner- and client-focused working methods
- Interdisciplinary thinking

The bidder must provide a clear overview of all proposed experts and their individual qualifications.

4.2 Required Qualification / experience for the consulting agency

The Agency should have the following administrative and financial requirements for conducting the assignment:

- i. The average annual turnover for the last three financial years should be at least 40,000 Euro.
- ii. Number of employees as at 31.12.2019 should be at least 10 persons.
- iii. Agency must have handled at least 3 projects on Climate Change and Natural Resource Management in India in the last three years with minimum commission value of Euro 25,000.

The Agency should have the following experiences for conducting the assignment:

- i. Minimum 10 years of experience and technical expertise in the field of climate change, NRM, development plans and policies, the institutional landscape on climate change and in engaging and liaising with different government and non-government stakeholders in India.

- ii. Substantial experience in the field of climate change and sustainable development, UNFCCC negotiations and matters related to national and international policy paradigm on climate change, capacity building and engaging and liaising with national/ state government and nongovernment/ civil society stakeholders in India.
- iii. The Agency must demonstrate project experience of developing analytical and user-friendly tools and scoring methodologies in the field of climate change.
- iv. The Agency must have excellent reporting and writing skills with the ability to coordinate inputs from a wide variety of sources as well as the structure and synthesize the inputs.

5. Costing requirements

Assignment of personnel

Team leader: On-site assignment for 50 expert days

Expert 1: Assignment in country of assignment for 100 expert days

Expert 2: Assignment in country of assignment for 110 expert days

Travel

The bidder is required to calculate the travel by the specified experts and the experts it has proposed based on the places of performance stipulated in Chapter 0 and list the expenses separately by daily allowance, accommodation expenses, flight costs and other travel expenses. Some of the pre-defined travel limits for each expert is given below.

Team leader: To be base location at his/ her office with 3 trips involving at least 2 days per trip of travel during the assignment and is eligible for air travel along with other local travel. Original boarding passes along with invoices will be required for air travel reimbursement

Expert 1: To be base location at his/ her office with 3 trips involving at least 2 days per trip of travel during the assignment and is eligible for air travel along with other local travel. Original boarding passes along with invoices will be required for air travel reimbursement

Expert 2: To be base location at his/ her office with 3 trips involving at least 2 days per trip of travel during the assignment and is eligible for air travel along with other local travel. Original boarding passes along with invoices will be required for air travel reimbursement

6. Requirements on the format of the bid

The structure of the bid must correspond to the structure of the ToRs. In particular, the detailed structure of the concept (Chapter 3) is to be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). It must be legible (font size 11 or larger) and clearly formulated. The bid is drawn up in English language.

The complete bid shall not exceed 15 pages (excluding CVs).

The CVs of the personnel proposed in accordance with Chapter 4 of the ToRs must be submitted using the format specified in the terms and conditions for application. The CVs shall not exceed 2 pages. The CVs must clearly show the position and job the proposed person held in the reference project and for how long. The CVs can only be submitted in English language.

If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment.

Please calculate your price bid based exactly on the aforementioned costing requirements. In the contract the contractor has no claim to fully exhaust the days/travel/workshops/ budgets. The number of days/travel/workshops and the budget amount shall be agreed in the contract as 'up to' amounts. The specifications for pricing are defined in the price schedule.