

F. No. 10/50/2016-CC Part I
Government of India
Ministry of Environment, Forest and Climate Change
Climate Change Division

Invitation for Expressions of Interest
for studies to develop roadmap for implementation of India's Nationally
Determined Contribution (NDC) Goals

The Ministry of Environment, Forest and Climate Change invites 'Expressions of Interest' (EoI) from research institutions/organizations working in the climate change domain and expertise, for developing roadmaps for Goal nos. 3, 4, 5, 7 & 8 under India's Nationally Determined Contributions (NDCs). The 'Terms of Reference' for the studies are enclosed. Each goal would be taken up in a separate study. An institution/organization can apply for more than one study.

The EoI (in soft/hard copy) is to be sent to the following address, **latest by 27th March 2018 (3:00 PM)**. The email subject/envelope should clearly mention the Goal no. for which the study proposal is submitted:-

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TERMS OF REFERENCE FOR
STUDY TO DEVELOP ROADMAP FOR IMPLEMENTATION OF
INDIA'S NDC GOAL 3

Background

1. The Ministry of Environment, Forest & Climate Change (MoEFCC) is nodal Ministry in India for climate change issues including coordination of implementation of India's Nationally Determined Contribution (NDC).
2. India submitted its NDC to United Nations Framework Convention on Climate Change (UNFCCC) on 2nd October 2015. The NDCs outline Post-2020 climate actions intended under the Paris Agreement.
3. Goal 3 of India's NDC is 'to **reduce the emissions intensity of its GDP by 33 to 35 percent by 2030** from **2005 level**'. MoEFCC intends to commission a study to develop a roadmap for this goal.

Scope of Work

4. The study should incorporate the following: -
 - Map existing sector-specific policies, mechanism and measures to mitigate emissions in all sectors namely Energy, Industrial Processes and Product Use (IPPU), Agriculture, Land Use and Land Use Change (LULUCF) and Waste.
 - Status of current implementation of these policies, mechanism and measures
 - Assess the mitigation potential of existing policy framework
 - Analyze factors and aspects influencing the said goal.
 - Forecast BAU and desired levels of emission intensity till 2030.
 - Undertake gap analysis
 - Recommend sector-specific policies for achieving NDC Goal 3.
 - Develop a roadmap for achieving NDC Goal 3
 - Clearly outline the methodology/approach with timelines of deliverables including monthly reporting framework.
 - Sector specific budgetary requirements including additional funding needed.

Key Deliverables

5. Covering above scope and expected outputs, the draft report shall contain clear roadmap/ strategies for achieving Goal 3 of India's NDC in an effective and efficient manner.

Timeline

6. The timeline for the proposed study is six months from the date of award of work.

TERMS OF REFERENCE FOR
STUDY TO DEVELOP ROADMAP FOR IMPLEMENTATION OF
INDIA'S NDC GOAL 4

Background

1. The Ministry of Environment, Forest & Climate Change (MoEFCC) is nodal Ministry in India for climate change issues including coordination of implementation of India's Nationally Determined Contribution (NDC).
2. India submitted its NDC to United Nations Framework Convention on Climate Change (UNFCCC) on 2nd October 2015. The NDCs outline Post-2020 climate actions intended under the Paris Agreement.
3. Goal 4 of India's NDC is 'to achieve about **40 percent cumulative electric power installed capacity** from **non-fossil fuel-based energy resources** by **2030** with the help of transfer of technology and low cost international finance including from Green Climate Fund (GCF)'. MoEFCC intends to commission a study to develop a roadmap for this Goal.

Scope of Work

4. The study should incorporate the following: -
 - Map existing mitigation schemes on the demand side
 - Status of current implementation
 - Analyze factors and aspects influencing the said goal.
 - Forecast BAU and desired share of non-fossil fuel based energy resources till 2030.
 - Conduct gap analysis and resource need assessment (technology and capacity building needs)
 - Recommend sector-specific policies for achieving NDC Goal 4.
 - Develop a roadmap for achieving NDC Goal 4
 - Clearly outline the methodology/approach with timelines of deliverables including monthly reporting framework.

Key Deliverables

5. Covering the above scope and expected outputs, the draft report shall contain clear roadmap/ strategies for achieving Goal 4 of India's NDC in an effective and efficient manner.

Timeline

6. The timeline for the proposed study is six months from the date of award of work.

TERMS OF REFERENCE FOR
STUDY TO DEVELOP ROADMAP FOR IMPLEMENTATION OF
INDIA'S NDC GOAL 5

Background

1. The Ministry of Environment, Forest & Climate Change (MoEFCC) is nodal Ministry in India for climate change issues including coordination of implementation of India's Nationally Determined Contribution (NDC).
2. India submitted its NDC to United Nations Framework Convention on Climate Change (UNFCCC) on 2nd October 2015. The NDCs outline Post-2020 climate actions intended under the Paris Agreement.
3. Forestry sector constitutes an important part of NDC. Goal 5 of India's NDC is **'to create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂eq through additional forest and tree cover by 2030**. MoEFCC intends to commission a study to develop a roadmap for this goal.

Scope of Work

4. The study should incorporate the following: -
 - Map existing domestic policies/ plans/programmes to achieve the forestry target.
 - Status of current implementation
 - Analyze factors and aspects influencing the said goal.
 - Forecast BAU and desired levels of forest carbon sink till 2030.
 - Conduct gap analysis and resource need assessment (technology and capacity building needs)
 - Specific policy recommendations on enhancing the 'Trees outside Forest cover'.
 - Recommendation on trading of green credits between states (pilot basis).
 - Assess the potential of Climate Change mitigation in forestry sector.
 - Clearly outline the methodology/approach with timelines of deliverables including monthly reporting framework, additional land requirements, where will be these lands – wasteland, degraded forest, highways, railway lines etc.

Key Deliverables

5. Covering the above scope and expected outputs, the draft report shall contain clear roadmap/ strategies for achieving Goal 5 pertaining to forestry sector.

Timeline

6. The timeline for the proposed study is six months from the date of award of work.

TERMS OF REFERENCE FOR
STUDY TO DEVELOP ROADMAP FOR IMPLEMENTATION OF
INDIA'S NDC GOAL 7

Background

1. The Ministry of Environment, Forest & Climate Change (MoEFCC) is nodal Ministry in India for climate change issues including coordination of implementation of India's Nationally Determined Contribution (NDC).
2. India submitted its NDC to United Nations Framework Convention on Climate Change (UNFCCC) on 2nd October 2015. The NDCs outline Post-2020 climate actions intended under the Paris Agreement.
3. Of the eight goals under India's NDCs, three goals pertain to concrete quantitative targets on emission intensity reduction, renewable energy and carbon stock in forests. The other three are qualitative. A requirement of USD 2.5 trillion has been indicated to achieve these.
4. Goal 7 of India's NDC is '**to mobilize domestic and new & additional funds from developed countries to implement the above mitigation and adaptation actions in view of the resource required and the resource gap**'. Raising finance for this goal requires plural approaches when it comes to strategies and instruments to be deployed. Apart from the budgetary approaches, there is scope for looking at how India's capital and commodity markets can be harnessed, there is also the larger question of how to synergize existing proliferated sources and tie them into a structured financing framework and how to leverage private finance. It is also vital that institutions/economic instruments (including, PAT, REC, possibly, national carbon markets, private sources) accord well with the overall objective of NDCs and our National climate plans. MoEFCC intends to commission a study to develop a roadmap for this goal.

Scope of Work

5. The study should incorporate the following: -
 - (a) Output 1 (Map Needs)
 - Detailed cost assessment of implementing the 3 quantitative NDCs with breakup of associated costs for different sectors.
 - Assess financing estimates for 5 qualitative NDC goals.
 - Make climate finance need projections based on current mix of sources and funds.
 - (b) Output 2 (Review Current Sources and Estimate Shortfall)
 - Collection of data on different kinds and amount of climate finance flowing into and within India (both in direct and indirect form such as indirect taxes).
 - Offer critical assessments on current availability and measure shortfall. Identify gaps between finance needs and availability of funds by sector, by policy etc. Develop a matrix to highlight gaps against needs.

- Explore coherence and synergies in utilizing existing proliferated sources (NCEF, Adaptation Fund, private finance etc.) sources to finance NDC goals.
 - Propose how the shortfall can be met and outline clear financial outlays required between 2020 and 2030.
- (c) Output 3 (Study Existing and New Instruments)
- Examine suitability of different instruments (grants, loans, interest subsidy, capital subscription, export credit, equity investments, bonds, carbon markets etc.).
 - Explore role of new instrument and tools for raising finance such as eco-subsidies, taxes, green bonds and assess their potential costs versus benefits.
 - Make recommendations on preferred sources and combination of instruments.
 - Pilot study for one of the sectors using new instruments. Estimations of cost, concessions etc.
- (d) Output 4
- Develop a roadmap for achieving India's NDC Goal 7
 - Clearly outline the methodology/approach with timelines of deliverables including monthly reporting framework.

Key Deliverables

6. Covering the above scope and expected outputs, the draft report shall contain clear roadmap/ strategies for achieving Goal 7 of India's NDC in an effective and efficient manner.

Timeline

7. The timeline for the proposed study is six months from the date of award of work.

TERMS OF REFERENCE FOR
STUDY TO DEVELOP ROADMAP FOR IMPLEMENTATION OF
INDIA'S NDC GOAL 8

Background

1. The Ministry of Environment, Forest & Climate Change (MoEFCC) is nodal Ministry in India for climate change issues including coordination of implementation of India's Nationally Determined Contribution (NDC).
2. India submitted its NDC to United Nations Framework Convention on Climate Change (UNFCCC) on 2nd October 2015. The NDCs outline Post-2020 climate actions intended under the Paris Agreement.
3. Goal 8 of India's NDC is 'to build capacities, create domestic framework and international architecture for quick diffusion of cutting edge climate technology in India and for joint collaborative R&D for such future technologies'. MoEFCC intends to commission a study to develop a roadmap for this goal.

Scope of Work

4. The study should incorporate the following: -
 - Map the existing technologies across sectors which directly or indirectly cater to the mitigation and adaptation requirement of climate change
 - Identify technology gaps
 - Prepare a tentative list of disruptive technologies
 - Develop a technology roadmap for future research programmes of India, leading to sustainable development
 - Clearly outline the methodology/approach with timelines of deliverables including monthly reporting framework.

Key Deliverables

5. Covering the above scope and expected outputs, the draft report shall contain clear roadmap/ strategies for achieving Goal 8 of India's NDC in an effective and efficient manner.

Timeline

6. The timeline for the proposed study is six months from the date of award of work.
