

Proceedings of webinar on: “Development of roadmap to achieve an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover in India by 2030 (Forestry Sector NDC for India)”

Date: Monday, 06th July, 2020

Time: 0130 to 0330 pm, IST



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Development of roadmap to achieve an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover in India by 2030 (Forestry Sector NDC for India)

Date: 6th July, 2020 Time: 1:30 pm – 3:30 pm (IST)

 Dr Jitendra Vir Sharma Director, Land Resources, TERI	 Dr Subhash Ashutosh Director General, Forest Survey of India	 Mr Prakash Lakhchaura Deputy Director General (DDG), Forest Survey of India	 Dr Alok Saxena Former PCCF, Andaman & Nicobar Islands	 Dr Priyanka Research Associate, Land Resources, TERI
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Mr Siddharth Edake (Moderator)
Fellow and Area Convener,
Land Resources, TERI

For more information

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Back Drop

Forests in India are treated primarily as social and environmental resources, and only secondarily as a commercial resource. Forest and tree cover of the country is 80.7 million hectare which is 24.56% of the total geographical area (ISFR, 2019). More than 350 million people derive their full or partial livelihood and sustenance need from forests. Forests provide a range of goods and services. Services, often termed as ecosystem services, are the outcome of ecosystem functions that benefit households, communities and economies and influence human well-being. However, forests suffer degradation due to the ever increasing demand for goods and services. Unsustainable harvests of fuel wood for energy requirements and the fodder needs of cattle are reportedly the major drivers of degradation. As much as 68% of the population in India collects 85.29 million tonnes of fuel wood from forests (ISFR 2019).



Climate change is a major challenge for a developing country like India that is particularly vulnerable to climate risks. It is alarming when economic growth and social upliftment are critical to India's development trajectory. In 2015, 196 Parties came together under the Paris Agreement to transform their development trajectories so that they set the world on a course towards sustainable development, aimed at limiting global warming to 1.5 to 2 degrees C above pre-industrial levels. The Paris Agreement requests each country to outline and communicate their post-2020 climate actions, known as their Nationally Determined Contributions (NDCs). India also submitted its NDC wherein it committed to reduce the emission intensity of GDP by 33-35% by 2030. One of the ways through which it plans to achieve this is by creating an additional carbon

sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030. It is an exceedingly difficult and ambitious task that requires immediate reforms as well as strong political and financial commitment from the government. This requires an insightful analysis into the existing legal and legislative framework in the country around forests and interrelated sectors. TERI will prepare a roadmap to achieve this goal. Two scenarios will be addressed, a Business as Usual and a Desired Level scenarios till 2030. These scenarios would be developed by analysing a slew of policy, technological, financial, capacity building and other relevant measures. The roadmap will be built upon these scenarios to address the steps needed to achieve and if possible surpass this target. This webinar on “**Development of roadmap to achieve an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover in India by 2030 (Forestry Sector NDC for India)**” held on **Monday, July 6th, 2020 from 1:30 pm to 3:30 pm, IST**, focussed on identifying and analysing the factors that influence the achievement of forestry sector NDC goal for India as well as the challenges and opportunities involved in implementation of the goal.

The key panelists for the webinar were **Dr J.V. Sharma, Director, Land Resources Division, TERI; Dr Subhash Ashutosh, Director General, Forest Survey of India; Mr Prakash Chandra Lakhchaura, Deputy Director General, Forest Survey of India; Dr Priyanka, Research Associate, Land Resources Division, TERI and Dr Alok Saxena, Former PCCF, Andaman & Nicobar Islands. The session was moderated by Mr. Siddharth Edake, Fellow, Land Resources Division, TERI.** The webinar was attended by 120 participants from various organizations working in diversified fields. Annexure I presents the detailed agenda for the webinar.

Discussion session

Dr. J.V. Sharma, initiated the discussion with his welcoming remarks. He started off with describing the mechanism for creating the Nationally Determined Contributions and how India’s NDCs centre around the country’s policies and programmes for Enhancing Carbon Sink (Forests) - To create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030. He mentioned that forestry is in the concurrent subject of Indian constitution and the responsibility of Central Government is policy



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and planning while implementation is with state governments. Dr. Sharma particularly emphasised the point that the GoI has still not decided the baseline year to quantify the target to be achieved by 2030 and also not communicated the target to the state governments. He also raised the issue that in the target the use of 'additional' word has been made twice and a logical interpretation is that target must be over and above the BAU. According to him, once these points are resolved by the Government of India, only then quantification of the target could be done.



Next in the series **Dr Subhash Ashutosh**, briefed about the scenario that despite India being a developing country, it's NDC goals are quite ambitious and highly significant commitments have been made. He also gave key insights about several initiatives taken by FSI in the last year which has helped to understand the activities to be undertaken to achieve India's forestry

NDC target. Dr Ashutosh stated that some clarity is still required in the target statement regarding the baseline year, the concept of additionality as it is always above BAU and regarding the additional forest and tree cover. He also emphasised that there is very less time left to achieve the target and India needs a well framed strategy taking into account various factors such as India's large forest cover, agro forestry, forests along the road side, wastelands, river side and other types of lands for the same. According to him we should take this target as an opportunity where all the related activities contributing to it will enhance ecological security, improvement of vast open forest of the country as well. He focused that mobilising adequate funds through State Governments, CAMPA, CSR and other new innovative mechanisms for these activities shall play an important role.

Mr Prakash Chandra Lakhchaura, Deputy Director General, Forest Survey of India in his presentation on “**Trend of Carbon Stock in Forest in India vis-a-vis NDC Target**” briefly mentioned about the important work done by FSI in the field of forest resource assessment, ground based forest inventory, carbon estimation for GHG inventory, Global Forest Resources Assessments (GFRA) and UNFCCC.



He highlighted that there is a gradual increase in the forest cover of India since ISFR 2005 to ISFR 2019, and emphasized on the existing framework, policies, acts and rules which are in place for addressing the targets of NDC in vogue in the country. He made a presentation on the FSI study on forestry target of NDC: “India’s Nationally Determined Contribution of Creating an Additional Carbon Sink of 2.5 to 3 Billion Tonnes of CO₂ eq through Additional Forest & Tree Cover: possibilities,

Scale and Cost for Formulation Strategy” published in FSI Technical information Series-Vol-3. Based on the study findings, various scenarios were suggested to bring about a potential increase in carbon sink and forest cover, amongst which the most recommended by FSI is second scenario with 2.51 billion tonnes of total national level CO₂ equivalent and 3.43 per cent additional gain in forest cover upto year 2030. In addition, FSI has also incorporated an adopted cost model as per the norms from CAMPA documents and have also documented the cost required for the additional forest and tree cover in all the scenarios.

The suggested 2nd scenario will cost INR 1.92 lakh crores with a resultant increase in an area of 18.71 million hectares of forests and tree cover. He mentioned that the achievement of an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent is an immensely big opportunity for the forestry sectors to make improvement in the forest area and to carry out additional activities.



In another presentation made by **Dr Priyanka** from TERI she focused on the overall strategy in order to develop the “Roadmap to achieve an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover in India by 2030”. The major point of discussion relates to the unsustainable harvests of fuel wood for energy requirement and the fodder needs of cattle that are

reportedly the major drivers of degradation. The major issues, which she addressed in the presentation relates to forecasting financial resources, analyzing the institutional framework, strengthening agroforestry, policy interventions, sustainable forest management and exploring the potential of blue carbon in mitigating climate change in India. Dr. Priyanka also discussed about the total budget required for carrying out the conservation and afforestation approach and she also proposed state-wise targets in terms of CO₂ equivalent and the total grants that each state should receive taking into consideration the area under forest cover and potential area under agroforestry. She also emphasized on the strategies and mitigation measures that need to be taken in order to achieve the target.

Dr Alok Saxena, Former PCCF, Andaman & Nicobar Island in his special remarks broadly encapsulated the key points delivered by the eminent speakers and shared his viewpoint on determining the base year to be 2015. He also made some suggestions on afforestation in the forest area, restoration of non-forest land into forest area, assessing and developing an appropriate strategy for improving the natural grasslands which together can contribute to the additional carbon. In addition, he shared his experience from his tenure in FSI and also sought FSI’s attention on utilising CNFA (Culturable



Non-Forest Area) data from State Forest Report, 2003 to assign state-wise afforestation targets in order to have an additional area of 11 million hectare for afforestation activities.

Key findings of the discussion and recommendations:

In the light of the discussions, following points were taken into consideration:

- The baseline year should be decided as 2015 in order to quantify the India's forestry target to be achieved by 2030.
- The concept behind usage of "additional" word twice in the target needs to be clarified. The panelist were of the view that the target should be increase in carbon sink over the business as usual (BAU).
- NDC targets must be distributed to the states/UTs on the basis of culturable Non forestry Area (CNFA) and Forest and Tree cover .
- The Carbon Neutrality Policy should be promoted at national and state level which will help in improving quality and health of forest and will also provide fair compensation to the forest dwelling communities.
- There is a need to build capacity of frontline staff of the forest department for detailed skills and techniques on biomass and carbon stock assessment , and also to prepare projects for obtaining carbon finance.
- Innovative Finance Mechanism through Carbon Market should be established at MOEF&CC level or agency recognized by Government of India to regulate the transaction at National Level, and also at international level later considering success of the mechanism.
- Agro-forestry has a huge potential to contribute toward achieving India's forestry NDC target, hence it should be promoted. Minimum Support Price (MSP) and institutional strengthening are also important factors to focus to avoid to market failure in agroforestry.
- The practice of monoculture plantations should be disregarded while undertaking activities of afforestation. Instead a mix of native species present in each area is recommended for this purpose.
- Third party monitoring is very important for the maintainance of the plantations done during afforestation activities and any mid-term corrections required in this process of achieving the target.
- A framework should be developed which allows accounting of forest carbon addition as well as loss due to forestry activities undertaken anywhere in the country so that statuts of forets carbon sink in the country is known at any given time.

Mr. Siddharth proposed the vote of thanks and concluded the event to be successful.

Annexure I. Agenda of the webinar

Webinar on:

“Development of roadmap to achieve an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover in India by 2030 (Forestry Sector NDC for India)

Date 6th July, 2020

Time: 1:30 pm – 3:30 pm IST

01:15 pm – 01:30 pm	Joining calls	
01:30 pm – 01:40 pm	Welcome address	Dr J.V. Sharma, Director, Land Resources Division, TERI
01:40 pm – 01:55 pm	Keynote Address	Dr Subhash Ashutosh, Director General, Forest Survey of India
01:55 pm – 2.15 pm	Presentation on Trend of Carbon Stock in Forest in India vis-a-vis NDC Target	Mr Prakash Chandra Lakhchaura, Deputy Director General, Forest Survey of India
02:15 pm – 02:30 pm	Presentation on Overall strategy to develop roadmap to achieve Forestry NDC Target by 2030.	Dr Priyanka, Research Associate, CBES, TERI
02:30 pm – 02:45 pm	Special Remarks	Dr Alok Saxena, Former PCCF, Andaman & Nicobar Islands
02:45 pm – 03:15 pm	Q & A	
03:15 pm – 03:30 pm	Concluding remarks	Dr. Subhash Ashutosh, DG, Forest Survey of India
	Moderator	Mr. Siddharth Edake, Fellow, CBES, TERI
	Rapporteurs	Ms Priya Sharma, Research Associate, CFMG, TERI Ms Ankita, Project Associate, CSLM, TERI