

# Role of Forests in the Paris Climate Conference

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## Introduction

The Paris Climate Conference, officially known as the 21st Conference of the Parties (COP21), will be held November 30 – December 11 in Le Bourget, France. The goals for the conference, as stated by French Minister of Foreign Affairs Laurent Fabius, include establishing a legally binding international agreement to limit global warming to 2 degrees Celsius. In preparation for the conference, participating countries are submitting Intended Nationally Determined Contributions (INDCs) that state their emission targets and provide high-level outlines of how the targets will be achieved. As of November 18, 2015, 140 INDCs have been submitted representing 167 countries. Forest management is a component of many of the INDCs with approaches including afforestation, reforestation, reduction in forest degradation, and increased stocking explicitly mentioned.

## History and Context

The Paris Climate Conference builds on 25 years of international effort to establish an effective and equitable approach to addressing climate change. The United Nations Framework Convention on Climate Change (UNFCCC) was adopted in 1992. The UNFCCC establishes the objective of “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” Commitments established in the UNFCCC include formulating and implementing national programs to reduce and sequester greenhouse gas emissions. The Copenhagen Accord of 2009 established the goal of limiting global warming to 2 degrees Celsius and acknowledged that “deep cuts in global emissions are required according to science”.

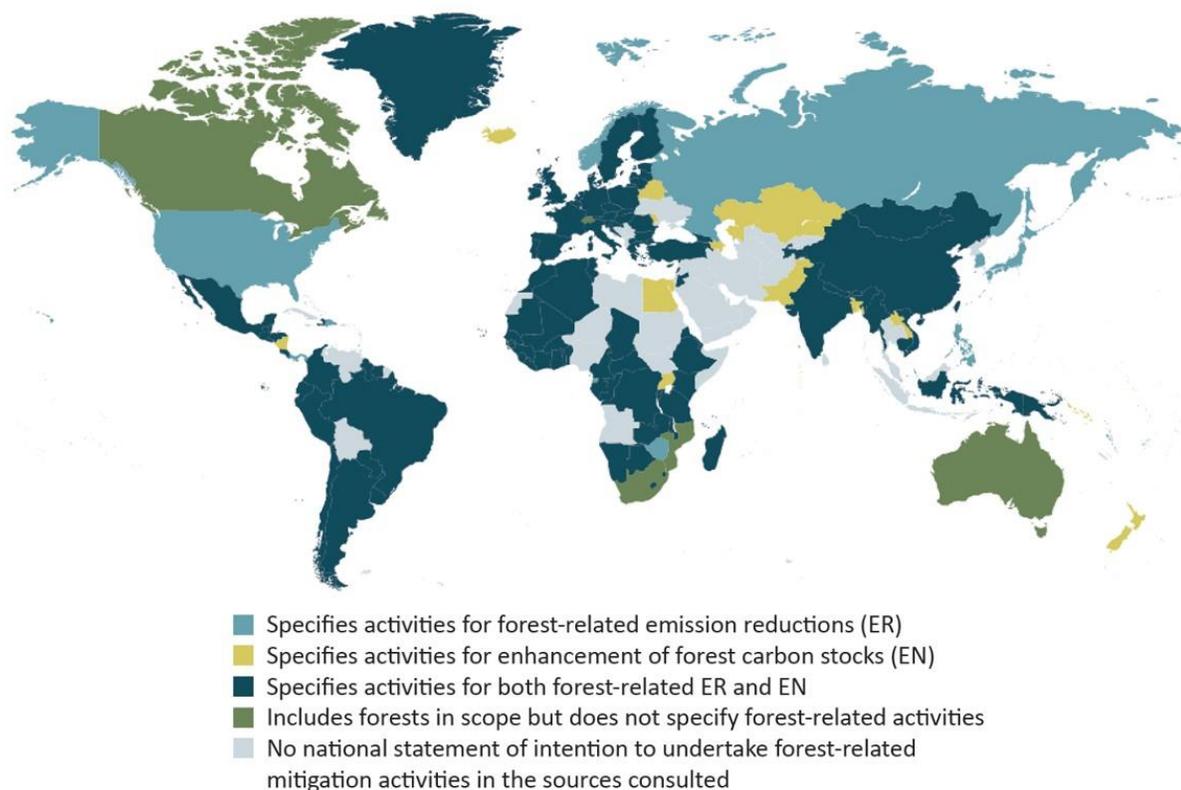
## Role of Forests in the Draft International Agreement

The draft international agreement to be considered at the Paris conference references forests primarily in the context of two competing approaches to minimizing deforestation in the tropics. The two approaches explicitly mentioned in the draft agreement are Reducing Emissions from Deforestation and Forest Degradation (REDD) and the Joint Mitigation and Adaptation Mechanism (JMA). REDD is a market-based approach to creating financial value for the carbon stored in forests. JMA is a non-market-based approach to integrating climate change mitigation and adaptation through linking of a range of factors including agriculture and forestry, protection of biodiversity and support of indigenous populations. REDD has been tested in a variety of tropical nations and has proven to be difficult to implement due to a number of factors including insufficient funding, questions on tenure and

ownership of forestland, insufficient or unstable governance structures, and lack of sufficient on-the-ground technical expertise. One possible outcome of the Paris conference is an increase in support of the Green Climate Fund that could be used for direct payments in support of either REDD or JMA.

## Role of Forests in Individual Nation Commitments

The [INDCs submitted prior to the conference](#) include a broad range of commitments across sectors that include energy efficiency, transition to low-carbon energy production, improved transportation efficiency, and use of forests to enhance carbon sequestration and storage. In preparation for the Paris conference, the United Nations Environment Program has released their 2015 Emissions Gap Report. The 2015 report, which is the most recent annual assessment of progress towards meeting the global 2 degree goal, includes an analysis of the potential for greater forest-related mitigation. The following map from that analysis is a depiction of national intention to undertake forest-related mitigation activities through the INDCs and several related previous commitments.



Source: [http://uneplive.unep.org/media/docs/theme/13/EGR\\_2015\\_ES\\_English\\_Embargoed.pdf](http://uneplive.unep.org/media/docs/theme/13/EGR_2015_ES_English_Embargoed.pdf)

Examples of the types of forest-related commitments included in the INDCs:

- China has committed to increasing forest stock volume by 4.5 billion cubic meters compared to 2005 levels.
- India will create an additional carbon sink of 2.5 to 3 billion tons of CO<sub>2</sub> equivalent through additional forest and tree cover by 2030.
- Honduras includes afforestation/reforestation of 1 million hectares of forest by 2030 in their commitments.

It is likely that forest management and carbon market opportunities will also be influenced by efforts to reduce emissions in other sectors. The U. S. Clean Power Plan (CPP), for example, is a key component of U.S. efforts to reduce emissions from existing power generation facilities. Under the CPP, states and regions are allowed to establish emission trading programs as one component of compliance. This potential expansion of the market for carbon credits could provide incentive for additional afforestation and forest management to maximize carbon sequestration and storage.

## **Implications for Forest Owners and Managers**

While it is not likely that any of the decisions taken at the Paris conference will directly impact the commercial forestry industry, the international agreement that will be negotiated and the INDCs will influence land use decisions and the role of forests in mitigating and adapting to climate change for many years to come. As human population continues to grow and living standards improve, existing tensions between different land uses, including food production, carbon sequestration and storage, protection of biodiversity, and production of wood and fiber will be exacerbated. How these land use questions are resolved, in conjunction with changing carbon credit markets, will alter the policy and economic contexts that forest owners and managers operate in.

In addition to substantial global reductions in GHG emissions, all of the scenarios under consideration to limit warming to 2 degree C depend on the eventual inclusion of “negative emission technologies”. One such technology that is under consideration is bioenergy combined with carbon capture and storage (BECCS). Theoretically, BECCS contributes to negative emissions through the following steps:

- Sequestering carbon through the growing of biomass fuels
- Use of the resultant biomass in energy production to supplant burning of fossil fuels
- Capturing and storing the carbon that results from the burning of the biomass

BECCS is an unproven technology so it is not possible to know at this point the feasibility of large-scale deployment or the potential role of forests as a fuel source.

Regardless of the specific outcomes of the Paris conference, it is safe to say that forests will play an increasingly important role in meeting multiple goals. Manomet will provide Climate Smart Land Network members with follow-up analysis at the conclusion of the conference.