

- ◆ National Working Plan Code of 2014 and concerns on climate change
- ◆ REDD-plus: an opportunity for climate change mitigation
- ◆ Climate-smart forestry: research needs

Session 6: WRAP UP: DRAFTING OF RECOMMENDATIONS

The session will begin with brief presentations by the Conveners of all the sessions on deliberations and recommendations made in the sessions. All the recommendations will be deliberated upon by the panelists and participants and finalized for submission to MoEF & CC by the ICFRE.

Participation: IFGTB, Coimbatore proposes to extend its invitation for participation in this National Conference to the officers from Ministry of Environment, Forest and Climate Change (MoEFCC), All the Principal Chief Conservator of Forests (PCCFs) of State Forest and Sister Departments, All the DDGs and Directors of ICFRE and Its Institutes. IFGTB also extends its invitation to the subject experts in the reputed organizations in the country and nominated Scientists from ICFRE institutes to deliver Lead Presentations and Invited Talks on the themes of the Conference.

Venue: The venue is Institute of Forest Genetics and Tree Breeding, Coimbatore (Tamil Nadu) located in Forest Campus, R.S.Puram which is 4 km away from Coimbatore Railway station and 15 km away from Coimbatore Airport.

About City: The city is situated at 411 meters, above mean sea level with Summer temperature ranging from Maximum of 34.7°C and Minimum of 21.1°C and Winter temperature ranging from Maximum of 32.2°C and Minimum of 19.2°C.

Accommodation: Organizers will make the best possible arrangements for limited accommodation in Guest Houses of the Institute and Sister Organizations.

Organizing Committee

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NATIONAL CONFERENCE ON TOWARDS RESILIENT ECOSYSTEMS: THE ROLE OF FORESTRY RESEARCH

8-9, MAY 2018



Organized by
INSTITUTE OF FOREST GENETICS AND TREE BREEDING



(Indian Council of Forestry Research and Education)

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Background

Forest sector is uniquely placed in Climate Change scenario as on one hand deforestation and forest degradation contributes significantly to the warming of global climate systems, and on other hand forests have the potential to arrest the fast pace of changing climate by removing accumulated carbon dioxide from atmosphere and sequester it into vegetation and soil. However, being climate dependent systems, forests are also vulnerable to the changing climate. Forests in India are already under heavy socio-economic pressures leading to forest degradation. The changing climate is likely to further adversely impact the forest ecosystems in many ways.

According to India's National Communication to UNFCCC, the climate modelling for likely impacts of Climate Change on natural ecosystems and biodiversity in India has shown that 30.6% of forests are projected to be vulnerable by the year 2035 which is likely to increase to 45.9% by the year 2085. However, forests ecosystems with their vast biodiversity and evolutionary adaptation are expected to have resilience to the changing climate. The resilience of a forest ecosystems to changing environmental conditions is determined by its biological and ecological resources, in particular, i) the diversity of species including micro-organisms, ii) the genetic variability within species and iii) the regional pool of species and ecosystems. Hence, scientific deliberations and discussions on this subject of "Ecosystem Resilience" are the need of the hour for ensuring sustainable flow of forest ecosystem services. Further, there is an imperative need to review and revisit Research and Development initiatives taken by various State Forest Departments and Research Organizations on the subject of Forest Ecosystems Resilience. In this backdrop, a National Conference is proposed to be conducted on "Towards Resilient Ecosystems: The Role of Forestry Research" on 8-9, May 2018 by the Institute of Forest Genetics and Tree Breeding, Coimbatore. The following are the Themes and

sub-themes identified for the Conference presentation and deliberations.

Session 1: VULNERABILITY ASSESSMENT

By considering the dearth on discussions and deliberations on this critical issue of Vulnerability of forests ecosystems and biodiversity to the changing climate, this first session of the National Conference will have the following sub-themes:

- ◆ Likely impacts of climate change on forests and biodiversity of India
- ◆ Vulnerability assessments and evidences on adverse impacts

Session 2: TREE IMPROVEMENT AND BIOTECHNOLOGICAL STRATEGIES FOR CLIMATE RESILIENCE

Trees as perennials that possess vast amounts of genetic variation which provides the inherent ability to adapt to different environments. This adaptive genetic constitution always interacts with the environment at different levels for different characters. This adaptive variation in tree species could be explored and exploited for developing climate resilient genotypes through tree improvement techniques and use of various biotechnological tools. The session will deliberate the role tree improvement and biotechnological strategies under two sub-themes:

- ◆ Role of tree improvement for developing climate resilient tree species
- ◆ Biotechnological strategies towards climate change adaptation

Session 3: HARNESSING FOREST GENETIC RESOURCES FOR CLIMATE RESILIENCE AND FOREST HEALTH

Conservation, documentation and characterization of forest genetic resources for harnessing them for climate

resilience and monitoring of forest health for a active forest management calls for a National level strategy. This session of the Conference is to deliberate on methods to conserve the vast forest genetic resources of the country and to recommend management strategies towards health of forest ecosystems in view of perceived risks due to climate change. The sub-themes are:

- ◆ Forest genetic resources for climate resilience
- ◆ Forest health towards resilient forest ecosystems

Session 4: ADAPTIVE FOREST MANAGEMENT: ISSUES AND CHALLENGES

Adaptation in forest sector has to follow a holistic ecosystem approach for its intricate relations with many biotic and abiotic components and also for the reason that there are enormous challenges due to heavy dependence of communities on forest ecosystems. Hence, there is a need for Adaptive Forest Management, which will be discussed under sub-themes of:

- ◆ Adaptive forest management towards moderation of likely impact
- ◆ Issues and challenges in adaptive forest management
- ◆ Reorientation of forestry research for facilitating adaptive forest management.

Session 5: CLIMATE-SMART FORESTRY: RESEARCH AND MANAGEMENT

The scope of Forestry Research to enhance ecosystem sustainability, adaptation, and mitigation potential for developing approaches for Policy makers, planners, Forestry practitioners, and researchers will be discussed and deliberated in this session. The sub-themes are:

- ◆ Green India Mission as a strategy for mitigation and adaptation