Kick-off meeting

of the Department of Biotechnology funded Project

"Assessment of adaptive genetic diversity in teak and sandalwood to guide conservation and genetic improvement efforts"

on

19 July 2019

Institute of Forest Genetics and Tree Breeding, Coimbatore

The Institute of Forest Genetics and Tree Breeding, Coimbatore organized the Kick-off meeting on "**Assessment of adaptive genetic diversity in teak and sandalwood to guide conservation and genetic improvement efforts**" to discuss the practical steps essential for experimental planning activities. Dr. Mohit Gera, Director, IFGTB welcomed the esteemed chief guest Shri R.K. Upadhyay, IFS, PCCF, Head of Forest Force and Chairman, Tamil Nadu Forest Plantation Corporation Ltd. Dr. S. Murugesan, Scientist-G, Group Co-ordinator Research, welcomed the project investigators Dr. R. Yasodha, Scientist-G, Dr. Modhumita Dasgupta, Scientist-F and Prof K. Ulaganathan, Osmania University; Dr. Suma, Senior Scientist, KFRI and Dr. Shijo Joseph, Asst Professor, KUFOS from other collaborative institutes with his introductory remarks on the importance of this project to the changing climate. A brief introductory talk on the "Adaptive forest management" was given by Dr. Mohit Gera, Director, IFGTB, highlighting the value of Indian forests. He also projected the global scenario of climate change and its likely impact on forests and biodiversity, necessitating the need for climate-smart forestry. He also highlighted the need for knowing the climate resilient crop, securing the resilient crop and its usage for reforestation, relocation and overall conservation.

An overview of the project was given by Dr. R. Yasodha, wherein the idea behind the proposal of the project and the expected outcomes were deliberated. She insisted on the importance of genetic variability as a means of adaption in trees to the changing climate. She also discussed about the

landscape genomics strategy to identify the priority population, understand the local adaptations, different degrees of resilience and the type of assisted migration required. Following this Prof K. Ulaganathan, Osmania University shared his expertise on "Computational extension of the genomic revolution to trees". He shed lights on Bioinformatics and the different types of data that can be generated. Further, he also explained about the amount of time spent in wet lab, data analysis and lab validation. He necessitated the generation of large amount of genomic data in Teak and Sandalwood.

Dr. Shijo Joseph, Asst Professor from KUFOS, delivered a talk on "Relevance of Geospatial approaches in assessment of adaptive genetic diversity in Teak and Sandalwood". He explained about the major satellites and the wide range of data that can be acquired from them. He gave an insight into the work flow for generating climate change induced ecological niche model. This was followed by the concluding remarks by the Chief Guest, Shri R. K. Upadhyay, PCCF, HoFF and Chairman, TAFCORN. He emphasized on the importance of timber forestry and creative thinking to preserve the gene pool. He remarked on the availability of foliar spray for Sandalwood in Western Australia to enhance heartwood production upto 90% within 10 years. He very strongly advocated 'Production Forestry' and opined for relaxing rules for farmers to grow Sandalwood, large scale multiplication of teak in production forestry and easy accessibility of protocol developed for Teak and Sandalwood to the farmers. Finally, he appreciated the efforts of IFGTB on taking up research on the two economically important tree species for conservation of forest genetic resources. The meeting ended with a formal vote of thanks.