DBT/ Forest Biotechnology

DBT calls for research project proposals on forest biotechnology

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New Delhi, April 07: Forests are the world's greatest repository of terrestrial biomass, soil carbon and biodiversity. Forests provide a variety of provisioning, supporting, regulatory and cultural ecosystem services, which are crucial for the survival of humans. Besides, forests contribute immensely towards maintaining local hydrological balance. Conservation of biodiversity is key to maintaining the flow of such ecosystem services, and biodiversity conservation itself has important implications for the future generations. Forests provide safe habitat for a large diversity of microbes, fauna and flora.

Department of Biotechnology considering the multidimensional importance of forest areas, particularly their vital role in maintaining the flow of ecosystem goods and services, has been supporting research and development programme on forest and conservation biotechnology aiming at conservation and sustainable use of bioresources *viz*., medicinal plants, tree-borne oil seeds, resin and wax yielding plants, as well as developing tools for mitigation and adaptation of climate change impacts, and enhanced carbon sequestration by the forest vegetation and soil. In addition, forest areas being the last resort for several threatened species, their conservation through application of proven biotechnological tools would ensure the saving of threatened species of the country from extinction. On these lines, efforts have been made to encourage R&D programs in emerging areas of Forest and Conservation Biotechnology through specific call for research proposals.

Recently, a Call for Proposals was issued in this area with special focus on: Development of biotechnological mitigation and adaptation strategies in forestry sector to meet the challenges of climate change; Cutting edge research using newer technologies like tree genomics for understanding of forest tree biology, development of tree diagnostics and planting material improvement for improved productivity and biodiversity of forested ecosystems; Development of seed handling and molecular marker-based seed testing/ certification technologies for development of good quality seeds and planting materials for industrial forests; Development of site specific technological packages for restoration and rehabilitation of degraded and fragile forest eco-systems; Development of technologies for measuring and maintaining ecosystem services from forests; and Modeling and control of invasive species in protected areas using biotechnological approaches.