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Big Project to Help JNTBGRI Turn National Institute



P G Latha, Director, Jawaharlal Nehru Tropical Botanic Garden Research Institute, speaks about the mega project from Department of Biotechnology

PALODE:The Department of Biotechnology (DBT) has entrusted Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) with a Rs 6.75-crore project, as the state government awaits the Centre's approval on takeover of the institute. The project, which has the potential to lead mankind to enzymes and plants that can cure some of its gravest problems, will in addition further the cause of upgrading JNTBGRI into a national institute.

It was owing to financial constraints that the state government first approached Centre in October 2012, with a request to take over the institute. The matter was taken up with Vayalar Ravi, the then Science and Technology and Earth Sciences Minister, and Jaipal Reddy who was in charge of the portfolio later.

In June 2013, a team from DBT had inspected the facility and the idea for a project was mooted during this visit. "They were impressed by the institute's performance. In March 2014, an MoU was signed to entrust us with a biotechnology project. DBT decided that they can take over the institute based on the implementation of the project," says P G Latha, Director, JNTBGRI.

It was by end of May that the grant was sanctioned by DBT. The project will be a collaborative effort involving national research institutes like Rajiv Gandhi Centre for Biotechnology and National Institute for Interdisciplinary Science and Technology (NIIST), Pappanamcode. Titled 'Programme Support on Biotechnology Approaches for Conservation and Sustainable Utilisation of Plant Wealth of Western Ghats', it covers all major interest areas of JNTBGRI.

The themes for the project were decided after a few brainstorming sessions between faculty from other national research institutes, JNTBGRI scientists as well as DBT officials. Each of the suggested theme - plant-animal interaction; plant material for therapeutically useful compounds; plant antivirals; microbial enzymes of industrial importance - are highly relevant to biotechnology research in the country.

For example, one of the research topics explores the ability of two anti-diabetic plants with focus on curing diabetic complications. While most anti-diabetic plant research ends with basic research, ratifying a plant's ability to fight diabetes, the research at JNTBGRI will also cover the ability to fight complications like diabetic nephropathy and retinopathy.

If it yields positive results, it will be a breakthrough, considering that these complications are considered irreversible, to date. "We have been working on leads provided by tribal communities. Since their knowledge is time-tested, the Ethnopharmacology division at JNTBGRI has usually got positive results. We are hopeful about good results, this time as well," says S R Suja, principal investigator of the anti-diabetic project.

While excited about the project's various topics, the scientists find themselves racing against time as the project comes with a three-year-deadline. The project hardly adds any infrastructure to the institute. No amount of the money can be used for civil construction work. Though the institute can purchase some equipment for the project, it will have to depend on the infrastructural facilities of the collaborating institutes.

Plan B: CSIR might take over JNTBGRI

Palode: While the Department of Biotechnology has granted a project to JNTBGRI to prove its mettle, Council of Scientific and Industrial Research (CSIR) has come forward with a proposal to take over the institute.

JNTBGRI Director P G Latha says, "CSIR has expressed an interest in taking over JNTBGRI. It is keen on this as this institute has a similar profile as National Botanical Research Institute-CSIR, Lucknow. Suresh Das, Executive Vice-President, Kerala State Council of Science, Technology and Environment, is negotiating with CSIR." The state government has been repeatedly requesting the Centre to take over the institute, because of limited fund availability. This year, the state budget had allocated Rs 11.36 crore for non-plan (salary) expenditure and Rs 12 crore for plan expenditure.

The institute, while possessing an impressive collection of over 50,000 accessions, belonging to more than 5,000 plant species, has been facing infrastructural limitations. Without a strong compound wall, the institute's precious plant species are constantly in the danger of being trampled on by wild elephants trespassing on the 300-acre campus. The built-up area is not sufficient to accommodate the more than 300 employees at the institute.

On May 17, Science and Technology and Earth Sciences Minister Harsh Vardhan had promised that he would look into the state's request. Meanwhile, if the CSIR proposal works out, the institute will consider that.