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Ministry's 'no' to Neutrino Observatory project in Nilgiris

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The Hindu A coffee plantation at Singara near the Mudumalai Sanctuary. The government has decided against locating a Neutrino Observatory (INO), an underground experimental physics project, at Singara. Instead, the Ministry of Environment and Forests has suggested that the project be moved to a site near the Suruliyar falls in Theni district of Tamil Nadu. Photo: K. Ananthan

Suggests the project, proposed by Department of Atomic Energy, be moved to a site near Suruliyar falls

The government has decided against locating a Neutrino Observatory (INO), an underground experimental physics project, at Singara in the Nilgiris district of Tamil Nadu. Instead, the Ministry of Environment and Forests has suggested that the project, proposed by the Department of Atomic Energy, be moved to a site near the Suruliyar falls in Theni district of Tamil Nadu.

Suruliyar was one of the several sites considered by the scientists, but rejected as being inferior, compared to Singara.

The INO is a major multi-institutional project, at the forefront of high-energy physics. It aims at addressing several fundamental unresolved questions in physics by studying elusive particles called neutrinos in a world class laboratory built underground. A large material overburden above an underground laboratory helps to stop all other contaminating particles and allows only the very weakly interacting neutrinos to arrive at the detector.

In a letter to Chairman of the Atomic Energy Commission (AEC) Anil Kakodkar on Friday, Union Minister of State for Environment and Forests Jairam Ramesh said that based on the report of Rajesh Gopal, Additional Principal Chief Conservator of Forests (PCCF) and Member-Secretary of the National Tiger Conservation Authority (MS-NTCA), the Ministry cannot give a go-ahead to Singara.

After a discussion with key scientists connected to the project at the Ministry on September 4, the Minister instructed Dr. Gopal and other forest officials to visit the project site and submit a report. The visit took place on October 31. It was followed by a meeting with the scientists at the PCCF's office in Chennai on November 3. The Minister too was supposed to visit the site to ascertain the issues for himself, but it did not happen.

"The proposed project site," says the report, "falls in the buffer zone of Mudumalai Tiger Reserve and is in close proximity to the core/critical tiger habitats of Bandipur and Mudumalai Tiger reserves. It is also an elephant corridor, facilitating elephant movement from the Western Ghats to the Eastern Ghats and vice-versa."

It must be pointed out that the notification declaring these areas as tiger reserves was issued only in 2008, six years after the INO project was proposed and two years after the DAE applied to the Tamil Nadu Forest Department for approval. According to the scientists, till date no communication had been received on their application from the Department. Even more pertinent is the fact that the State government is apparently yet to endorse the notification.

The report says that the area is already disturbed on account of severe biotic pressure due to human settlements and resorts and that the construction phase of the project would involve transport of building materials through the highways passing through the core area of the Bandipur/Mudumalai Tiger Reserves.

It, however, does not say how these resorts came up in the reserved forest area in the vicinity of the elephant corridor.

Interestingly, both the Minister's letter and Dr. Gopal's report do acknowledge the views of R. Sukumar, an expert on the Nilgiris Biosphere Reserve from the Indian Institute of Science, Bangalore. He was of the view that the proposed project would not be detrimental to the wildlife and environment of the region and that the arguments against Singara were, to a very large extent, exaggerated and misplaced.

"Even though various safeguards have been proposed in the environment management plan and even though I have high regard and respect for Dr. Sukumar, I am forced to come to the conclusion that Singara location should not be proceeded with," says the Minister in apparent contradiction.

Asking the DAE to seriously consider the Suruliyar site, the Minister has said that this site did not pose the types of problems that Singara posed and environmental and forest clearances should not be a serious issue. The letter also assures the DAE that the Ministry would facilitate necessary approvals for the alternative location.

A major consideration in favour of Singara over other locations was the existence of the 'Charnockite' geological formation, with an already excavated cavern of known strength for the underground power plant PUSHEP of the Tamil Nadu Electricity Board (TNEB), and the associated infrastructure already established. The INO project was proposed to be located within the power plant premises.

While the new site too has a hydroelectric project and also has Charnockite formation, a preliminary investigation report by the Geological Survey of India (GSI) points to the existence of a shear zone at the site where the tunnel for the experiment could be dug. According to the scientists, a detailed survey by the GSI would take 4-5 months after which an Environment Impact Assessment will have to be undertaken.

“But Suruliyar too is in a reserved forest area that is dense and would require cutting down of trees, something that was not required at Singara,” says Dr. Naba K. Mondal of the Tata Institute of Fundamental Research, who is the spokesperson for the project. “Can the government assure us that forest clearance for this site will be given,” he asks. “Alternatively, we can move to the nearby Thevaram, which is about 20-30 km away from the Suruliyar falls. This forest area has only shrubs but there is no source of water here and water will have to be piped over a distance of 30 km,” he adds.

Keywords: [Neutrino Observatory](#), [experimental physics project](#), [Singara](#), [Nilgiris](#), [Ministry of Environment and Forests](#), [Department of Atomic Energy](#), [Suruliyar falls](#), [Theni district](#)