Press Information Bureau Government of India Department of Atomic Energy

India – based Neutrino Observatory.

The India-based Neutrino Observatory (INO) Project is a multi-institutional effort aimed at building a world-class underground laboratory with a rock cover of approximately 1200 meter. The underground laboratory, consisting of a large cavern of size $132m \times 26m \times 20m$ and several smaller caverns, will be accessed by a 1900 m long and 7.5 m wide tunnel. INO project is jointly supported by Department of Atomic Energy (DAE) and Department of Science & Technology (DST) with DAE acting as the nodal agency.

The objective of INO is to conduct basic research on the elementary particle called neutrino. Presently 21 research institutes, Universities and IITs from all over the country are involved in this project. INO is expected to galvanise interest in basic science research in the whole country and particularly in and around Theni and Madurai districts of Tamil Nadu. Science students across the country will have opportunity to pursue cutting edge research in the field of particle physics while being located in India.

The observatory will be located underground so as to provide adequate shielding to the neutrino detector from cosmic background radiation. Tunnel construction is very common and will not have any impact on environment, water sources or dams in the region. The project has all the required clearances from various Central and State Government authorities. A detailed geotechnical studies was also carried out by the Geological Survey of India (GSI).

The operation of INO will have no release of radioactive or toxic substances. It is not a weapons laboratory and will have no strategic or defence applications.

Certain sections of media in the recent past have reported that the INO underground laboratory and the tunnels will be used for storing nuclear waste. Such reports are not factual and are baseless. Department of Atomic Energy strongly refutes such erroneous and malicious reports. It categorically states that no nuclear waste will be stored there at any time and INO laboratory will be used only for the purpose of basic science research in the field of neutrino physics.