

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO.2058
TO BE ANSWERED ON 11.07.2019

RADIOACTIVE MATERIALS IN SUBARNAREKHA RIVER

2058. SHRI PRASANNA ACHARYA:

Will the PRIME MINISTER be pleased to state:

- (a) whether it is a fact that traces of radioactive materials have been found in Subarnarekha river in Odisha and Jharkhand which may affect the life of local people living along the river bank and if so, the details thereof; and
- (b) whether the Department proposes to take any safeguard measures to protect horticulture and fisheries from pollution being caused by atomic energy projects in the country and if so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH):

- (a) No, Sir. The detailed survey carried out by the Environmental Survey Laboratories (ESLs), Bhabha Atomic Research Centre (BARC) on the levels of radioactivity in water and sediment samples, in the Subarnarekha river clearly showed that there is no increase in radioactivity in the river ecosystem above the background levels. The presence of the naturally occurring radioactivity does not affect the life of local people living along the river. The surrounding environmental matrices are periodically monitored by an independent Environmental Survey Laboratory established by the BARC and the results are submitted to Atomic Energy Regulatory Board (AERB). The reports on the environmental monitoring are reviewed at AERB to assess the impact on Uranium Corporation of India Limited (UCIL) operation and the effluent releases on the environment, including the Subarnarekha River. As per the latest record available with AERB, the radioactivity levels i.e average uranium and radium levels in Subarnarekha river is only 1.5% -2% of the drinking water limit permitted by World Health Organisation (WHO) / AERB and is comparable with the natural background levels.
- (b) Nuclear power is clean and environment friendly and does not emit any green house gases or pollutants. It has no adverse impact on the agriculture and horticulture in the

surrounding areas. This can be evidenced as crops and fruit trees abound in the areas around existing nuclear power plants including in the plant premises. As regards fishing, the cooling water system for condensing steam is so designed that the temperature rise over ambient temperature of the water body (Sea, Lake etc.) is well within the limit set by the Ministry of Environment, Forests & Climate Change (MoEF & CC) and does not affect the marine life. The abundance of fish catch around existing nuclear power plants is testimony to this fact. A detailed Environmental Impact Assessment (EIA) is carried out as a part of the environmental clearance process and all the stipulations laid down in the Environmental Clearance are diligently implemented to ensure there is no adverse impact on the environment. The safeguards for protection of public and environment are already in place at all the Nuclear Power Plant Sites (NPPs) that includes site evaluation, design approval, construction and operational licence from MoEFCC and AERB respectively. The Environmental Survey Laboratories (ESLs) installed at all Atomic Energy Project sites as well as NPPs ensures compliance to the regulatory stipulations that includes safety of public and environment. ESLs carry out pre-operational survey around the plant site to establish the pre-operational baseline radioactivity levels around the site on environmental samples from atmospheric, terrestrial and aquatic environment such as air, water, soil, vegetations, agricultural produces, milk, meat, fish and other dietary products. During operation period of the reactor, samples of atmospheric terrestrial and aquatic environment are collected periodically and analyzed for radioactivity to assess the impact of operation of the plant on the surrounding environment and the public. ESLs are equipped with highly sensitive instruments and sufficient infrastructure to analyze extremely low levels of radioactivity and radiation in environmental samples. The radioactivity levels in environmental samples are compared with pre-operational values in the respective matrix. The studies carried out regularly at various NPPs have clearly showed that there is no unacceptable build up of radioactivity in the environment. Hence, additional safeguard measures to protect horticulture and fisheries from the operation of NPP are not required.
