GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA

UNSTARRED QUESTION NO:3085
ANSWERED ON:12.12.2012
UPGRADATION OF TSUNAMI EARLY WARNING CENTRE
Aaron Rashid Shri J.M.;Bhadana Shri Avtar Singh;Ramasubbu Shri S.;Tandon Annu

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the Government is planning to upgrade the Indian Tsunami Early Warning Centre (ITEWC) to a global tsunami warning system by networking it with other tsunami warning centres across the world;

(b) if so, the details thereof including its aims and objectives along with the cost of upgradation;

(c) the number of coastal forecast points under the Indian Centre proposed to be upgraded; and

(d) the further steps taken/being taken by Government in this regard?

Answer

MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTRY OF EARTH SCIENCES (SHRI S. JAIPAL REDDY)

a) Yes, Madam.

b) The Indian Tsunami Early Warning Centre (ITEWC) established at Indian National Centre for Ocean Information Sciences, (INCOIS - ESSO) Hyderabad, autonomous body under Ministry of Earth Sciences, is being upgraded continuously to provide tsunami advisories for the events occurring in the global oceans, though it has been recognized as one of the best systems in the world. The major upgradation work would be Standardization of the Operating Procedures, bulletin formats and terminologies with warning centres operating in other global basins. To achieve this, the Intergovernmental Oceanographic Commission (IOC of UNESCO) has set up a task team comprising of experts from tsunami warning centres of all ocean basins, with India as the Chair. The ITEWC encompasses a real-time seismic monitoring network of 17 broadband seismic stations to detect tsunamigenic earthquakes, a network of real-time sea-level sensors with 4 Bottom Pressure Recorders (BPR) in the open ocean and 25 tide gauge stations at different coastal locations monitor tsunamis and a 24 X 7 operational tsunami warning centre to provide timely advisories to vulnerable community. It also receives earthquake data from all other global networks to detect earthquakes of M>6.5. The state-of-the-art early warning centre at INCOIS - ESSO is operational since October 15, 2007 with all the necessary computational and communication infrastructure that enables reception of real-time data from seismic & sea-level sensors, analysis of the data, tsunami modeling, and dissemination of tsunami advisories guided by a comprehensive Standard Operating Procedure (SOP). A host of all available communication technology options have been employed for timely dissemination of advisories to various designated authorities to deal with effective emergency response actions as appropriate. The centre is capable of detecting tsunamigenic earthquakes occurring in the whole of Indian Ocean region

as well as in the Global Oceans within 10 minutes of their occurrence and disseminates the advisories to the concerned authorities within 20 minutes through various modes of communication like email, fax, SMS, GTS and website. Since its inception in October 2007 to till date, ITEWC has monitored 339 earthquakes of M > 6.5 out of which 63 are in the Indian Ocean region. ITEWC also acts as one of the Regional Tsunami advisory Service Provider (RTSP) along with Australia & Indonesia for the Indian Ocean region. As the oceans on the earth are interconnected, the tsunami waves generated due to any great earthquakes in the global oceans can affect the Indian Coasts. In order to protect our coasts from tsunamis up-grading the present system is very essential. Up-gradation of ITEWC will also enhance its capability to provide tsunami advisories to the other needy countries in the world. The basic infra-structure and the necessary computational facilities are established while setting up the Indian Tsunami Early Warning Centre and hence no major hardware upgradations are proposed. The maintenance of the entire early warning system is carried out with a budget allocation of Rs. 17.00 Crores per annum. Model simulations required for global operations would be run as part of this itself. Additional data required for the enhancement of ITEWC for global operations can be obtained by collaborations with centres operating in other countries.

c) Currently, there are 1800 coastal forecast points covering coastal areas of the entire Indian Ocean region.

d) The necessary actions have been initiated to upgrade the same for covering other the coastal regions.