GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. - 180
ANSWERED ON 08/12/2022

COASTAL DESALINATION PLANTS

180. SHRI MASTHAN RAO BEEDA:

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether Government has taken measures to develop desalination units to serve the water requirements of coastal areas;
(b) if so, the details thereof, State/UT-wise;
(c) the impact of the measures undertaken;
(d) the agencies involved in the same; and
(e) the details of any other proposed measures to be taken in this regard in the State of Andhra Pradesh?

ANSWER
THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR
MINISTRY OF SCIENCE AND TECHNOLOGY
AND EARTH SCIENCES
(DR. JITENDRA SINGH)

(a) Yes, Sir. Ministry of Earth Sciences (MoES) through its autonomous Institute National Institute of Ocean Technology (NIOT) has developed Low Temperature Thermal Desalination (LTTD) technology for conversion of sea water to potable water which has been successfully demonstrated in Lakshadweep islands. The LTTD technology is found suitable for Lakshadweep islands where the required temperature difference of about 15ºC is observed between sea surface water and deep sea water. Such difference in coastal water temperature with changes in depth is found in the vicinity of Lakshadweep coasts only as of now. Department of Science and Technology (DST) supported solar powered RO plant-based desalination at Ramanathapuram district, Tamil Nadu.

(b) Three desalination plants based on the LTTD technology have been developed and demonstrated at Kavaratti, Agati and Minicoy Islands of Union Territory of Lakshadweep. The capacity of each of these LTTD plants is 1 Lakh litre of potable water per day. Based on the success of these plants, Ministry of Home Affairs (MHA) through Union Territory (UT) Lakshadweep has entrusted the work of establishing 6 more LTTD plants at Amini, Androth, Chetlet, Kadmat, Kalpeni and Kiltan with a capacity of 1.5 lakhs litres/day.

(c) The LTTD plants established in the UT of Lakshadweep are catering to the potable water requirements of the local inhabitants in these remote islands.

(d) The LTTD technology is completely indigenous, having been developed by the National Institute of Ocean Technology, Chennai, which is an autonomous institute of Ministry of Earth Sciences. Installation and maintenance of the LTTD plants are done in association with UT Lakshadweep Administration.

(e) Ministry of Earth Sciences has no proposed scheme for developing desalination units in Andhra Pradesh.

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