GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION NO. 3563
TO BE ANSWERED ON WEDNESDAY, 22 MARCH, 2023

GENERATING FRESH WATER FROM OCEAN ENERGY

3563. SHRI AJAY NISHAD:

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the Government has developed any alternative source of fresh water to fulfil the drinking-water demands in coastal areas;
(b) if so, the details thereof and if not, the reasons therefor; and
(c) the number of desalination plants established so far in harnessing ocean energy for generating fresh water?

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

(a) Yes Sir.

(b) 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. Three desalination plants based on the LTTD technology with a capacity of 1 Lakh litre of potable water per day have been developed and demonstrated at Kavaratti, Agati and Minicoy Islands of Union Territory (UT) of Lakshadweep. Based on the success of these plants, Ministry of Home Affairs (MHA) through 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) Desalination plants harnessing ocean energy have not been established so far. However, the desalination plant based on LTTD technology works on a required temperature difference of about 15ºC between sea surface water and deep sea water, which was observed in the vicinity of Lakshadweep coasts only.

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