

GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
**RAJYA SABHA**  
UNSTARRED QUESTION NO. **369**  
TO BE ANSWERED ON MONDAY, NOVEMBER 26, 2012

**SCHEME FOR CONVERSION OF SEA WATER INTO DRINKING WATER**

**369. DR. CHANDAN MITRA:**

Will the Minister of **EARTH SCIENCES** be pleased to state:

- (a) whether Government has formulated any scheme to install large number of plants in the coastal areas of the country for producing drinking water from sea water;
- (b) if so, the details thereof and the per litre cost of drinking water so produced from these plants; and
- (c) by when these schemes are likely to be implemented?

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

- (a). Yes, Sir.
- (b). The National Institute of Ocean Technology (NIOT) an autonomous body of the Ministry of Earth Sciences has indigenously designed, developed and demonstrated desalination technology for conversion of sea water into potable water based on Low Temperature Thermal Desalination (LTTD) technology. The LTTD is a process under which the warm surface sea water is flash evaporated at low pressure and the vapour is condensed with cold deep sea water. This technology is efficient and suitable for island territories of India. Till date, 4 LTTD plants have been successfully commissioned in the country, one each at Kavaratti, Minicoy, Agatti, Lakshadweep and at North Chennai Thermal Power Station (NCTPS), Chennai. The capacity of each of these LTTD plants is 1 lakh liter per day of potable water. Six LTTD plants funded by Lakshadweep Administration, one each in the islands of Lakshadweep viz., Amini, Chetlet, Kadamath, Kalpeni, Kiltan and Andrott are proposed to be set up. Also, it is proposed to set up a LTTD plant with a capacity of generating 2 million litres of potable water per day (2 MLD) at Tuticorin Thermal Power station, Tamil Nadu.

The cost per liter of desalination would depend on the technology used and cost of electricity which varies from place to place. According to the cost estimates made recently by an independent agency for LTTD technology, the operational costs per litre of desalinated potable water is about 19 paise for island based plants.

- (c). Six LTTD plants at Lakshadweep Islands and one LTTD plant at Tuticorin, Tamil Nadu are proposed to be implemented during the XII plan period.

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