

**GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA**

STARRED QUESTION NO:570

ANSWERED ON:05.05.2010

CONVERSION OF SEA WATER

Hamsrajbhai Shri Radadiya Vitthalbhai ;Vasava Shri Mansukhbhai D.

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the Government has formulated any scheme to convert sea water into potable water in the country;
- (b) if so, the details thereof including the locations identified for the establishment of plants for the purpose, State-wise;
- (c) the estimated cost of conversion of sea water into potable water including quantity likely to be produced; and
- (d) the various steps taken by the Government in this regard?

Answer

THE MINISTER OF STATE (INDEPENDENT CHARGE) MINISTRY OF SCIENCE AND TECHNOLOGY, MINISTRY OF EARTH SCIENCES, MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE, MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI PRITHVIRAJ CHAVAN)

(a) to (d) : A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF THE LOK SABHA STARRED QUESTION NO. 570 FOR ANSWER ON 5TH MAY, 2010.

(a) Yes, Madam.

(b) There are two major technologies currently being used for conversion of seawater into potable water. These are Reverse Osmosis and Thermal distillation. The Ministry of Earth Sciences (MoES) is working on Thermal distillation technology, the Low Temperature Thermal Desalination (LTTD) technology. It has till date 2 LTTD plants one each at Kavaratti, Lakshadweep and at Northern Chennai Thermal Power Station (NCTPS), Chennai, which have been operational since May 2005 and March 2009, respectively. The Ministry is in the process of setting of 3 more plants in the islands of Lakshadweep one each in Agatti, Androth and Minicoy. The target for completion of one of the plants at Agatti is June 2010. The LTTD desalination plants of this ministry are indigenously designed and developed. In addition, several desalination plants based on Reverse Osmosis (RO) are being set up in various parts of the country including in Chennai, by other Ministries and Departments. The Government of Tamilnadu is also making efforts to establish a 100 Million Liters per Day (MLD) Reverse Osmosis desalination plant in Chennai through foreign participation.

(c) The capacity of these LTTD plants is 1 lakh liter of potable water per day. The operational cost for conversion of seawater into fresh water is about 10 paise per liter.

(d) Currently, the Ministry is exploring the possibility of transferring this technology to Industry through public-private partnership for setting up of these plants. An Expression of Interest has been floated to identify a potential partner for setting up LTTD plants in islands of Lakshadweep and also at power plants located on the coasts utilizing the thermal effluents. As a part of scaling up plants for the coastal region of India, an offshore barge mounted 10-lakh liter per day capacity plant about 40 kms off Chennai was demonstrated in April 2007.