

Vigyan Samachar: MoES News

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MoES Webinar Series: Dr. Purnima Jaliha's talk on Ocean Thermal Desalination - A Success Story

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The Indian Institute of Tropical Meteorology (IITM), Ministry of Earth Sciences (MoES), is organizing an Earth Science Popular Lecture webinar series in coordination with other MoES institutes in the country.

Dr. Purnima Jaliha, Head, Energy and Fresh Water, National Institute of Ocean Technology (NIOT), Chennai, in an engagingly delivered lecture, spoke on the basic aspects of potential methods for seawater purification including desalination technologies. While recognizing that there is a need to address the water stress in the country, which has resulted due to large population growth, climate change and various other factors.



Figure: NIOT desalination Plant

Dr. Jaliha mentioned, by 2030, water demand in India would be around 1.5 trillion cubic meters (cubic meters) and it currently supplies around 740 billion cubic meters, just not enough. In the current COVID-19 crises, we bear the additional burden that comes to humanity in term of social disturbances, hand washing and sanitation at a time where there is no drinking water in some parts of the country.

NIOT has pioneered a novel desalination technique using ocean thermal gradient addressing several technical complexities which has become very successful in the island of Lakshadweep. Dr. Jaliha stated that NIOT is capable of generating green energy and clean water.

Dr. Jaliha suggested that pure water with 200–300 TDS is sufficient to drink, requiring no additional minerals.

Dr. Jaliha is heading the renewable ocean energies and desalination group in the NIOT, Ministry of Earth Sciences, Govt. of India with more than 28 years of research experience. She has received several awards including the Vishwakarma medal, Uehana prize for Ocean thermal energy conversion (OTEC) and is the EU led clean energy mission innovation champion for India, 2020.