

## Plantation at LIGO India using hydrogel developed by BARC

The Mega Science LIGO India project is located in arid region of Maharashtra. During the visit to DCSEM, Chairman, AEC & Secretary DAE directed for plantation at LIGO India Project site using hydrogel technology developed by BARC. Accordingly, Bio Science Group BARC was approached for implementation of super absorbent hydrogel-based plantation at LIGO India project site. Benefits of super absorbent hydrogel include reduced irrigation frequency, Soil augmentation by nutrients and water retention, Improved hydro-physical properties of soil, reduced erosion and water runoff, enhancement of plant productivity, especially in arid areas.

Initially two tamarind saplings were planted at corner station of LIGO India project site, one using super absorbent hydrogel and second without hydrogel under similar climatic conditions. Subsequently 15 no. of additional saplings are also planted in which 10 with hydrogel & five without hydrogel to study the benefits and suitability. Plants with hydrogel are irrigated with 50 % less water. The growth is being monitored and the difference is visible in photographs attached.

**Neem without Hydrogel, 10 litre water twice a week**

**Neem with Hydrogel, 5 litre water twice a week**



**Tamarind without Hydrogel, 10 litre water twice a week**

**Tamarind with Hydrogel, 5 litre water twice a week**



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**Tamarind without Hydrogel, 10 litre water twice a week**

**Tamarind with Hydrogel, 5 litre water twice a week**

