

**GOVERNMENT OF INDIA  
MINISTRY OF HUMAN RESOURCE DEVELOPMENT  
DEPARTMENT OF HIGHER EDUCATION**

**LOK SABHA  
UNSTARRED QUESTION No. 2991  
TO BE ANSWERED ON 05.12.2016**

**Technology Development by IISER**

**2991. SHRIMATI KOTHAPALLI GEETHA:**

Will the Minister of HUMAN RESOURCE DEVELOPMENT be pleased to state:

- (a) whether the Indian Institute of Science Education and Research (IISER) has recently made any breakthrough regarding development of technology to deal with marine oil spills; and
- (b) if so, the details thereof including the time by which the technology can be put to use on the ground?

**ANSWER**

**MINISTER OF STATE IN THE MINISTRY OF HUMAN RESOURCE DEVELOPMENT  
(DR. MAHENDRA NATH PANDEY)**

(a) & (b): The researchers of the Indian Institute of Science Education & Research (IISER), Pune, in collaboration with the Central Salt & Marine Chemicals Research Institute (CSMCRI), Bhavnagar and National Chemical Laboratory (NCL), Pune, have developed an ultra-hydro-phobic metal-organic framework based recyclable composite polymer fabric, which shows excellent oil / water separation from mixture phase. The work can potentially be applicable in marine oil spillage.

Similarly, the researchers of IISER Thiruvananthapuram have synthesised phase-selective organogelators (PSOGs) that when applied as powder, can congeal crude oil, benzene, diesel separately from oil-water mixtures. These organogelators are potentially useful for combating large oil spills that contaminate sea water and threaten marine organisms. However, this has been done only in the lab-scale now.

These technologies are still under lab-scale research mode and it is too early to comment on how long it would take to put these for use on the ground.

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