

**GOVERNMENT OF INDIA  
SCIENCE AND TECHNOLOGY  
LOK SABHA**

UNSTARRED QUESTION NO:636  
ANSWERED ON:26.11.2014  
ENVIRONMENT FRIENDLY TECHNOLOGIES  
Jena Shri Rabindra Kumar

**Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:**

- (a) whether his Ministry has collaborated with the Ministry of New and Renewable Energy Resources in order to come up with more modern energy efficient and environment friendly technology during the last three years;
- (b) if so, the details and the outcome thereof;
- (c) the details of test centres currently undertaking research on biofuels in the county;
- (d) the expenditure incurred on this research during the above period;
- (e) whether the Government has any new plans to expand such research; and
- (f) if so, the details thereof?

**Answer**

MINISTER OF SCIENCE AND TECHNOLOGY AND MINISTER OF EARTH SCIENCES (DR. HARSH VARDHAN)

- (a) Ministry of Science and Technology and Ministry of New and Renewable Energy Resources are collaborating through joint expert committee meetings, inter-ministerial consultations and delegations to articulate research and development priorities to come up with energy efficient and environment friendly technologies.
- (b) Three multi institutional networked virtual Joint Clean Energy Research and Development Centres on solar energy, second generation biofuels and building energy efficiency. The research carried so far has resulted in 72 publications in peer reviewed journals and a patent has also been filed.
- (c) Department of Biotechnology has set up 3 Bio- energy Centres viz. (i) DBT-Institute of Chemical Technology Centre for Energy Bio-Sciences at Mumbai for developing biotechnologies for improved bio fuel production (ii) DBT-IOC Centre for Advanced Bio-Energy Research at Faridabad for research, development and deployment of technologies and (iii) DBT-ICGEB Centre for Advanced Bio-Energy Research at New Delhi for higher lipid and bio mass yield.
- (d) An amount of Rs 37.34 crores has been spent on these centres.
- (e) No, Madam.
- (f) Does not arise.