

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

UNSTARRED QUESTION NO:5889
ANSWERED ON:08.09.2011
ACHIEVEMENTS IN SCIENTIFIC RESEARCH
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Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) the major achievements made by the various programmes that are being implemented under the Department of Scientific and Industrial Research;
- (b) whether most of the achievements developed by Research are being confined to the laboratories, journals and books;
- (c) if so, whether the Government has taken any effective measures to take the fruits of such research achievements to the end use; and
- (d) if so, the fields in which the achievements made were actually utilised or put into practice and the extent to which the country so far has been benefited by such initiatives for the last few years?

Answer

MINISTER OF STATE IN THE MINISTRY OF PLANNING, MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE MINISTRY OF EARTH SCIENCES (ASHWANI KUMAR)

(a) The major achievements made by the various programmes that are being implemented under the Department of Scientific and Industrial Research (DSIR) include: recognition to around 1400 in-house R&D units established by industries; reporting Rs. 8694 crore of R&D expenditure incurred by approved in-house R&D units of industries over first four years of 11th five year plan to DG (Income Tax), Exemptions for claiming weighted tax deduction @ 200% (enhanced from 150% to 200% during 2009-10); support to 40 projects of industries for development and demonstration of innovative product and process technologies and support to 260 projects of individual innovators for converting their scientific innovative ideas into models and prototypes over the first four years of 11th five year plan.

(b) No Madam.

(c) In order to take the fruits of research under DSIR programmes to the end use, several initiatives have been taken. These include implementation of fiscal incentives to industries for undertaking research and development, supporting industries in research and technology development efforts under Technology Development and Demonstration Programme and supporting individual innovators under Technopreneur Promotion Programme (TePP). Individual innovators who successfully develop prototypes are provided publicity. Their profiles are printed in "Creative India" publication brought out by the department. They are also supported by the department for entrepreneurship training programmes and participation in conferences and exhibitions, which helps them in conceptualizing a viable business model in collaboration with interested angel investors. The innovative product / process technologies developed under DSIR programmes have been commercialized which include, process development for production of Liposomal Amphotericin B, development of liquid phase oxidation process for Hydrogen Sulphide and recovery of sulphur from sour gases, development of 6-Hi Cold Rolling Mill, Interactive small arms training software, cotton delinting plant, high energy density valve regulated lead acid batteries for electric vehicles, and digital axle counter system for railways.

(d) The fields in which the achievements made under DSIR's industry programme were actually utilised or put into practice include drugs & pharmaceuticals, mechanical engineering, machine tools, electrical and electronics, telecom, chemical & process industries, packaging, etc. Recent achievements in terms of innovative developments under DSIR's individual innovators programme include tractor mounted pulveriser, low cost power from biomass, hydroponics device, tamper proof leather for printing, artificial voice device, herbal medicine for asthma, digital textile printing machine, smart educational robotic platform etc.

The country has benefited from DSIR's initiatives as the Government has been able to encourage industry to undertake research and development by sharing risks, which in turn has resulted in development of innovative products and processes and improvement in industry's competitiveness. The initiatives have also helped in nurturing the innovative potential of individuals whereby they have been able to convert their creative ideas into useful products.