

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH**

**LOK SABHA
UNSTARRED QUESTION No. 194
(TO BE ANSWERED ON 18.07.2018)**

RESEARCH PROJECT OF CSIR

194. SHRI VISHNU DAYAL RAM:

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

- (a) whether the Council of Scientific and Industrial Research (CSIR) has started several research projects for new inventions in various States of the country for the benefit of common people during the last three years; and**
- (b) if so, the details of the projects started in Jharkhand?**

ANSWER

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

- (a) Yes, Madam.**
- (b) The Council of Scientific and Industrial Research (CSIR) has been playing important role in providing the necessary Science & Technology knowledgebase needed for the social and economic development of the common people. CSIR has steadily contributed its technologies/ interventions/ advisory services encompassing end-to-end solutions in various domains like: Medicinal & Aromatic Plants, Pottery; Enhancing Potability of Water; Energy Efficiency; and Metallurgy, etc.**

In the state of Jharkhand, twenty-six key projects have been initiated/implemented during last three years by four CSIR labs namely (i) CSIR-CIMAP (Central Institute of Medicinal and Aromatic Plants), Lucknow, (ii) CSIR-CIMFR (CSIR-Central Institute of Mining and Fuel Research), Dhanbad, (iii) CSIR-NEIST (CSIR- North East Institute of Science and Technology), Jorhat, and (iv) CSIR-NML (CSIR-National Metallurgical Laboratory), Jamshedpur for benefit of common people. The details of these projects are enclosed at Annexure-I.

Annexure-I

Details of the key CSIR Projects initiated/ completed/ ongoing in Jharkhand during last 3 years

S. No.	Project/ Initiative details	District	CSIR Lab
1.	CSIR Aroma Mission: Catalyzing Rural Empowerment through Cultivation, Processing, Value Addition and Marketing of Aromatic Plants	Ranchi	CSIR-CIMAP
2.	Organization of awareness programme on cultivation of medicinal & aromatic plants in scheduled tribes of Dhudwa, Ranchi, Kondagaon & Haridwar region (Externally Funded by The National Academy of Sciences - NASI)	Ranchi	CSIR-CIMAP
3.	Providing consultancy and technical guidance for cultivation, primary processing/distillation and guidance for marketing and medicinal crop suitable for Jharkhand (Externally funded by Jharkhand State Livelihood Promotion Society-JSLPS)	Gumla, Khunti, Hazaribagh, Simdega, Latehar	CSIR-CIMAP
4.	Development and deployment of improved agro and processing technologies of economically important medicinal and aromatic crops for income enhancement and employment generation	Khunti	CSIR-CIMAP
5.	Mine Water Reclamation Technology for providing safe drinking water at Putki Bahihari Area, BCCL, Dhanbad	Dhanbad	CSIR-CIMFR
6.	Installation of Biogas plants in Ratanpur village and Amlatand village of Dhanbad District	Dhanbad	CSIR-CIMFR
7.	Bio-Methanation of coal rejects/low grade coal and biomass- Demonstration model at village Gaurigram, Chandankiyari village, Dhanbad.	Dhanbad	CSIR-CIMFR
8.	Multi-locational trial of developed varieties of different MAPs for livelihood promotion through area expansion of MAPs in the area.	Ranchi	CSIR-NEIST
9.	<ul style="list-style-type: none">• Smelting of LD slag in 50 kVA Electric Arc Furnace• Development of Fiber Bragg Grating (FBG) sensor based applications at Tata Steel	Purbi Singhbhum	CSIR-NML
10.	<ul style="list-style-type: none">• Development of Iron based rapidly solidified alloys from high phosphorous pig iron	Purbi Singhbhum	CSIR-NML

S. No.	Project/ Initiative details	District	CSIR Lab
	<ul style="list-style-type: none"> • Characterization, testing and evaluation of new developed products from LD slag 		
11.	<ul style="list-style-type: none"> • On-site residual stress distribution profiling of hot rolled sheets at Hot strip mill, TSL Jamshedpur site. • Modification of Microstructure and Mechanical Properties by High-intensity Ultrasonic Treatment of High-strength Steels; phase II 	Purbi Singhbhum	CSIR-NML
12.	<ul style="list-style-type: none"> • Failure Analysis of Front Axis Beam. • Simulation study on 'Direct Ore Comminution Circuit' of dry crushing plant at Joda. 	Purbi Singhbhum	CSIR-NML
13.	<ul style="list-style-type: none"> • Studies on smelting of manganese ore in electric arc furnace • Reduction of energy consumption in iron ore sintering by modified coke breeze distribution. 	Purbi Singhbhum	CSIR-NML
14.	<ul style="list-style-type: none"> • Improvement in the Water Quality by Providing Potable Water for the Villagers, • Water harvesting for irrigation and drinking purpose by construction of check dam • Determination of stacking fault energy of cold rolled medium manganese steel by X-ray diffraction 	Purbi Singhbhum	CSIR-NML
15.	<ul style="list-style-type: none"> • Supply of Domestic Fuel by Utilizing Coal Dust and Organic Waste, • Use of Bio-degradable wastes for generation of Bio-fuel, • Plantation of Medicinal/Aromatic and Economically Important Plants, • In-line Oxide Scale Removal of Wires using Ultrasonic Assisted Electrochemical Technique (UAET) 	Purbi Singhbhum	CSIR-NML
16.	Hot Forging, Hot Rolling and Rolling followed by Heat Treatment of Steels	Purbi Singhbhum	CSIR-NML
17.	Smelting studies on ferrochrome slag	Purbi Singhbhum	CSIR-NML
18.	Development of process for real time temperature mapping of 4 faces of the billet mould using densely multiplexed Fiber Bragg Grating (FBG) sensor	Purbi Singhbhum	CSIR-NML
19.	Dynamic Fracture toughness behavior of high strength linepipe Steel	Purbi Singhbhum	CSIR-NML

S. No.	Project/ Initiative details	District	CSIR Lab
20.	Online moisture % detection in coke in blast furnace through microwave-assisted IR thermography	Purbi Singhbhum	CSIR-NML
21.	Failure analysis of boiler tubes	Purbi Singhbhum	CSIR-NML
22.	<ul style="list-style-type: none"> • Metal oxide nano material based anti-corrosive chemical • Pilot scale floatation studies of iron ore 	Purbi Singhbhum	CSIR-NML
23.	Dry Beneficiation of High Ash Indian Thermal coal	Ranchi	CSIR-NML
24.	Sample collection & analysis for determination of quality /grade of stocks at different mines of CCL	Ranchi	CSIR-NML
25.	Development of process technology for third generation advanced high strength steel	Ranchi	CSIR-NML
26.	Coal Characterization of band by band coal core samples of Rajmahal Coalfield	Ranchi	CSIR-NML
