

**GOVERNMENT OF INDIA
STEEL
LOK SABHA**

UNSTARRED QUESTION NO:955
ANSWERED ON:08.12.2003
INVESTMENT ON RESEARCH AND DEVELOPMENT
RAM SHAKAL

Will the Minister of STEEL be pleased to state:

- (a) the investment made in public sector regarding Research and Development (R&D) works on steel during the last three years and the results thereof;
- (b) whether the Government have taken decision to promote more investment on R&D works for improvement in quality of steel keeping a view of trends of its quality and economic prices in the world;
- (c) if so, the details thereof; and
- (d) the latest status of the ongoing R&D projects and the projects which are lying consideration?

Answer

MINISTER OF STATE IN THE MINISTRY OF STEEL (SHRI BRAJA KISHORE TRIPATHY)

(a) The investment made by Public Sector undertakings under Ministry of Steel on Research & Development during the last three years is as follows:

Year	Investment (in Rs. crore)
2000-01	65.94
2001-02	66.91
2002-03 (upto September, 2003)	35.56

The research projects have yielded benefits in terms of process optimization, increase in productivity, improvement in quality, development of improved steel products, reduction in cost of production, energy consumption & refractory consumption and utilization of solid waste etc.

(b) & (c): To supplement Research & Development activities in the iron & steel sector, Government of India have decided to spend upto Rs. 150 crore per annum from the interest proceeds of Steel Development Fund (SDF) Accordingly, an Empowered Committee (EC) has been set up in the Ministry of Steel to approve and monitor Research and Development projects in Iron and Steel Sector. So far 29 research projects have been approved with total cost of Rs. 185.6 crore. Out of these, SDF contribution will be Rs. 88.64 crore. The research areas covered by these projects include improvement in productivity & quality and reduction in cost of production of steel.

(d) There are 15 on going R&D projects funded partially from SDF. Details of these are given at Annexure-I. In addition, there are 7 R&D projects under consideration for being funded from SDF. Details are at Annexure-II.

Annexure-I to Lok Sabha USQ No. 955 for 08.12.2003

LIST OF THE ONGOING R&D PROJECTS ASSISTED BY STEEL DEVELOPMENT FUND (SDF)

Sl.No Name of the project

- 1 Introduction of new mining methods and techniques for grounds control to enable mining of rich Manganese ore under very poor to fair grounds Conditions: by National Institute of Rock Mechanics and Manganese Ore (India) Ltd. MOIL.
- 2 To study various tolerable Indian non-coking coal sources with the aim of maximizing the usage of domestic non-coking coal in the COREX process: by Jindal Vijayanagar Steel Ltd.
- 3 Production of CC Billet/Bloom of quality suitable for single-stage conversion into special Bars: by Tata Iron & Steel Co. Ltd. and Regional Development Center for Iron & Steel (RDCIS),

- Steel Authority of India Ltd. (SAIL), Ranchi.
- 4 Maximisation of blast furnace productivity with Indian iron ore: by National Metallurgical Laboratory, Jamshedpur, Tata Iron & Steel Co. Ltd and RDCIS, Steel Authority of India Ltd.
 - 5 Improved leak proof design of door in coke oven battery at Rashtriya Ispat Nigam Ltd., Visakhapatnam: by MECON Ltd.
 - 6 Design and development of TRIP aided ferrite-bainite steel for structural application: by B.E. College (Deemed University), Shibpur.
 - 7 Cold Briquetting of Iron Oxide: by Ispat Metallics India Ltd.
 - 8 Development of ultra high strength steel in as rolled condition through thermo mechanical controlled processing: by B.E. College, P.O. Howrah.
 - 9 Damage assessment and integrity of welded components: by Jadavpur University, Kolkata.
 - 10 Mixing and mass transfer in steel making ladles stirred with dual porous plug: a physical and mathematical model investigation: by IIT, Kanpur.
 - 11 Setting up of a semi pilot demonstration plant (30kg/Hr capacity) for production of synthetic rutile, pig iron & high pure ferric oxide from east coast ilmenite using thermal plasma technology: by National Mineral Development Cooperation (NMDC), Hyderabad.
 - 12 Development of process for advanced hot dip coated products: by RDCIS, SAIL.
 - 13 Smelting reduction of chromite for ferro chrome/charge chrome making: by Regional Research Laboratory (RRL), Bhubaneswar.
 - 14 On-line Implementation of Indigenously developed expert system for continuously cast products in billet caster of Modern Steel, Mandi Gobindgarh: by MECON Limited.
 - 15 Setting up a Mini Sinter Plant to utilize waste generated out of present pig iron plant: by Tata Metalicks, Kharagpur.

Annexure-II to Lok Sabha USQ No. 955 for 08.12.2003

LIST OF PENDING APPLICATIONS FOR FINANCIAL ASSISTANCE FOR R&D WORK (AS ON 30.11.2003)

Sl.No. Name of the Project.

1. Ferritic Rolling: By Ispat Industries Ltd., Mumbai.
2. Development of a new sponge iron technology by combining shaft furnace has cyclone firing of coal: by Regional Research Laboratory (RRL), Bhubaneswar.
3. Microbial removal of phosphorus from LD slag : by RRL, Bhubaneswar.
4. A Center for Sheet Steel working: by Tata Iron Steel Company Ltd., Jamshedpur.
5. Development & Characterization of Spot Welding Techniques for Coated Steel Sheets: by Jadavpur University, Kolkata.
6. Optimized route of making sponge iron from iron ore fines and coal middlings: by Indus Electricity Ltd. Raipur, Chattisgarh.
- 7 Development of value added refractory products from Indian Bauxite: by Central Glass & Ceramic Research Institution in association with Indian Refractory Makers` Association, Kolkata