

**SHRI SURENDRA PAL SINGH :** Yes, Sir. A decision has been taken to send a delegation from India and it will be sent very soon.

**SHRI PRIYA RANJAN DAS MUNSI :** May I know from the hon. Minister whether in this document, the problem of South-East Asia and the attitude of India and Soviet Union against imperialism has been highlighted.

**SHRI SURENDRA PAL SINGH :** It is very difficult to say at this stage what particular aspects of policies or issues are likely to be highlighted. These are [matters of detail.

• **Bharati process of making Steel**

\*288. **SHRI BHOGENDRA JHA :** Will the Minister of STEEL AND MINES be pleased to state :

(a) whether examination of the Altekar [Committee Report with regard to the Bharati Process of making steel has been completed;

(b) if so, the result thereof; and

(c) whether vested interests in the steel industry and conventional technique are resisting the new process, and if not, the reasons for delay ?

**THE MINISTER OF STEEL AND MINES (SHRI S. MOHAN KUMARA-MANGALAM) :** (a) Yes, Sir.

(b) and (c). A statement is placed on the Table of the House.

**STATEMENT**

After careful scrutiny of all the available data, the Altekar Committee came to the conclusion that reduction [of iron ore in a coke oven type chamber and its subsequent discharge by a pusher machine as envisaged in the 'Bharati Process', was not a technically feasible proposition.

Government did not wish to take a final view on this subject without the fullest consideration. It was, therefore, decided to invite the comments of scientists/metallurgists in the country. Accordingly, wide publicity was given through a press hand-out on October 6, 1971, summarising the views of the Altekar Committee and scientists/metallurgists were invited to furnish their comments on the practical application of the process. Specialists in the field of ferro-metallurgy, thermo-dynamics and practising metallurgists who have had considerable experience in operating sophisticated steel plant equipment responded to the appeal made by the Government but they did not support Shri Bharti's claim or the feasibility of his process. They had generally agreed with the conclusions of the Altekar Committee.

On the basis of the information available, Government, therefore, came to the conclusion that further exploitation of the process may not be feasible. A press hand-out was issued on March 11, 1972 on the view taken by the Government on the basis of the comments received from scientists/metallurgists. Shri Bharati was also informed of the reasons for the decision taken by the Government.

There is no reason to think that the scientists/metallurgists who studied the material furnished by Shri Bharati gave their appraisal with any thing but the best motives and the highest objectivity.

**SHRI BHOGENDRA JHA :** I could not get a copy of the statement earlier. If you give me some time, I will go through this, Sir ..

**MR. SPEAKER :** That is not the practice of the House. Normally the statement should reach the Member in time. Should I enquire about it as to when it reached you ?

**SHRI BHOGENDRA JHA :** No Sir, I will ask my question. I would like to know about the last part of the question.

Is it a fact that vested interests in the industry and the outmoded old and traditional techniques are resisting the application of the new process of making steel in the country ?

**SHRI S. MOHAN KUMARAMANGALAM :** I have actually no reason to believe that the persons who advised us in this matter—who included among them the leading metallurgists in the country—had anything but the highest motives and objectivity in giving their report.

**SHRI BHOGENDRA JHA :** Bharati challengingly insisted that the process was more economical, more productive and more helpful for our economy as a whole and for the steel industry in particular. In that case, is any practical experiment being made on a wider scale ? Is the whole Committee convinced that the new process will not be suitable ?

**MR. SPEAKER :** It is mentioned in the statement.

**SHRI S. MOHAN KUMARAMANGALAM :** It was exactly in order to enable the Government to arrive at a proper decision regarding the validity of the process and whether it should be tested on a pilot plant scale that the matter was referred to a committee of leading metallurgists of this country for their advice. The Committee consisted of, as the hon. members may be aware, the following : Director of the National Metallurgical Laboratory, Jamshedpur—Chairman; Dr. Brahm Prakash, Director, Metallurgy Group, Bhabha Atomic Research Centre, Bombay; Dr. R. V. Tamhankar, Director, Defence Metallurgical Laboratory, Hyderabad; Prof. T. R. Anantaraman, Head of the Metallurgical Department, Banaras Hindu University; and Shri K. C. Mohan, Deputy Chief Engineer, Central Engineering and Designing Bureau. However, even after we received the report of this Committee and the Committee advised us that it would not be worthwhile starting a pilot plant, by

way of abundant caution and to make absolutely sure that this advice was correct advice, Government on 6th October 1971 gave a wide publicity through a press hand-out asking all or any other scientists and metallurgists in this country to furnish their comments if they wished to do so on the report of this Committee and advise us as to what they felt about it. Only after getting the replies from a number of persons who confirmed the original view and the report of the Committee, we came to the decision not to spend money on a pilot project

**SARI BHOGENDRA JHA :** What was the reaction of Bharati himself to the findings of this Committee ? Was he satisfied ?

**SHRI S. MOHAN KUMARAMANGALAM :** It is somewhat difficult sometimes to satisfy the inventors that their inventions do not have a solid basis.

**SHRI SHYAM SUNDER MOHAPATRA :** The hon. Minister is aware that I was the first man in the Lok Sabha to raise this point about Bharati process. The feasibility report was prepared by M/s. Koppers of West Germany. You know, Sir, it is one of the top concerns in the world; they had prepared the feasibility report and while Bharati was roaming round the world...

**MR. SPEAKER :** Please ask the question.

**SHRI SHYAM SUNDER MOHAPATRA :** Is it possible to spend about Rs. 2 crores for a pilot plant because the process will give us a tonne of steel for Rs. 50 ?

**SHRI S. MOHAN KUMARAMANGALAM :** So far as the question of Kopper's report is concerned, it was only a feasibility report in the sense that it examines the metallurgical reactions involved. It did not deal with the problems of engineering and process control which would be involved even in a pilot

plant operation and much more so, in a commercial operation. Koppers have stated in two letters, copies of which were given to us by Mr. Bharati himself, that they were not prepared to incur any expenditure for further development of the process. The Committee of high-standing metallurgists whom we appointed have advised us that the cost of a pilot plant operation may come to somewhere in the region of Rs. 12 to Rs. 15 crores and even if one tries to instal the pilot plant on a somewhat smaller scale than what the committee thought advisable, then, it would certainly take us to about Rs. 10 crores and that is why we thought that it was not worthwhile.

#### Kudremukh Iron ore Project, Mysore

\*289. SHRI PAMPAN GOWDA : Will the Minister of STEEL AND MINES be pleased to refer to the reply given to Unstarred Question No. 707 on the 18th November, 1971 regarding Kudremukh Iron Ore Project and state :

(a) whether Government have since examined the detailed Project Report for the Kudremukh Iron Ore Project in Mysore; and

(b) if so, the main features thereof ?

THE MINISTER OF STATE IN THE MINISTRY OF STEEL AND MINES (SHRI SHAHNAWAZ KHAN) : (a) The report of the working Group on the Detailed Project Report for Kudremukh iron ore deposits, has since been received by Government and is under examination.

(b) A statement giving a summary of the Detailed Project Report is placed on the Table of the House. [*Placed in Library. See No. LT—1666/72*]

SHRI PAMPAN GOWDA : How many days or months will the Government take to take a decision on this report ?

SHRI SHAHNAWAZ KHAN : The hon. Member is aware of the fact that this is a

very important project and a huge expenditure has to be incurred. The detailed report was received in March 1971 and a Working Group was set up to go into full detailed and various aspects and they have also submitted their report which is now being examined by various Ministries and it would be put up to the Cabinet very shortly.

SHRI PAMPAN GOWDA : My question has not been answered—as to when the Government is likely to take a decision.

SHRI SHAHNAWAZ KHAN : All I can assure the hon. Member is that it will go before the Cabinet very soon, possibly within a month or so.

SHRI P. VENKATASUBBAIAH : Since the Kudremukh iron ore is a low grade iron ore and as there are several other such project in that area, may I know whether the capacity of this project which is intended to cater to the needs of that particular area, will be enhanced so as to meet the requirements of the other iron ore projects which are having low-grade iron ore ?

SHRI SHAHNAWAZ KHAN : The iron ore found in this area is of a low grade varying between 33 and 39 per cent. It is a magnetic type or which can be beneficiated to 66 or 69%.

MR. SPEAKER : I have seen it. It is a very simple question. It is 7½% which is going upto 10%. Why don't you finish it in one minute ?

SHRI SHAHNAWAZ KHAN : The export in the initial stage would be 7½ million tonnes with a capacity to go upto 10 million tonnes.

MR. SPEAKER : That looks very simple.

Shri Muhammed Sheriff—absent.

Shri Atul Bihari Vajpayee—absent.

Shri Chittibabu—absent.

Shri Laskar.