not be covered. Has there been any step to rectify this defect or to condense the courses so that the students may be able to cover their courses or the teachers may be able to give the requisite number of lectures?

Dr. K. L. Shrimali: It is a suggestion for action. In any case, Sir, I would request hon. Members to wait till the report is submitted.

Shri Hem Barua: May I know whether this Committee has suggested spacing of examinations, selection of students and objective tests; if so, whether those factors were taken into consideration?

Dr. K. L. Shrimali: All those matters are under consideration.

श्री जांगड़े : क्या सरकार के सामने यह बात भी विचाराधीन है कि परीक्षा के बाद एक साल तक उन्हें ग्रामीण क्षेत्रों में सेवा करनी होगी और वह भी उन की योग्यता में सहायक होगी ?

Mr. Speaker: He wants to know whether the present system of examination is different and whether any kind of social activity is also taken into account.

Dr. K. L. Shrimali: If I have understood the hon. Member rightly, he asked whether national service would be considered as compulsory for the examination. That is a separate matter which is being examined. It has nothing to do with this particular committee.

Shri Thanu Pillai: May I know whether the committee have adopted their recommendations based on their experience of the local examinations or on a study of the conditions abroad?

Dr. K. L. Shrimali: They have had the opportunity of discussing this problem with some foreign educationists also.

Synthetic Liquid Fuel from Coal

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*1242. **Shri Subodh Hansda:**
Shri R. C. Majhi:
Shri Nek Ram Negi:
Shri N. M. Deb:

Will the Minister of **Scientific Research and Cultural Affairs** be pleased to state:

(a) whether it is a fact that a pilot project for the production of synthetic liquid fuel from coal has been set up by the Indian Institute of Technology, Kharagpur;

(b) whether this liquid fuel is the invention of the said Institute;

(c) whether this has started operation; and

(d) if so, the daily output of this pilot project?

The Minister of Scientific Research and Cultural Affairs (Shri Humayun Kabir): (a) Yes, Sir.

(b) No, Sir.

(c) and (d). The pilot plant was operated with success continuously for 20 days giving an output of 64 gallons per day. It is expected that this will increase to 100 gallons of crude oil per day for which it is designed.

Shri Subodh Hansda: May I know whether tests have been carried out about the various uses of the synthetic fuel and, if so, what are the different regions where they have been carried out and with what result?

Shri Humayun Kabir: Obviously tests have been carried out. Otherwise, crude oil would not have been produced.

Shri Subodh Hansda: What is the cost of production of this synthetic fuel?

Shri Humayun Kabir: This is being done on a laboratory scale as a part of the programme of the Indian Institute. So I do not have any separate account for the costs as yet.

Shri T. B. Vittal Rao: May I know whether the research that has been carried out in the Kharagpur Institute of Technology has been co-ordinated with what has already been done in the Hyderabad Research Laboratory where also a similar process has been found?

Shri Humayun Kabir: According to my information, work is being done in this field at two places: the Indian Institute of Technology, Kharagpur, and the Central Fuel Research Institute, Jealgora. At Hyderabad, it is not exactly the same type of work.

Shri C. D. Pande: What is the percentage of recovery of this fuel and what is its calorific value? May I know whether the calorific value of this coal is less than that of ordinary fuel, when compared to the coal?

Shri Humayun Kabir: The main advantage of this process is that we have very large deposits of low grade coal which are unsuitable for metallurgical and other purposes, but they can give us synthetic petrol and once you have synthetic petrol, it would be just as good as any other petrol.

Shri S. C. Samanta: The hon. Minister said that this test has also been carried out in the Central Fuel Research Institute. May I know what was the result there and whether the production of this fuel on a commercial scale has been examined?

Shri Humayun Kabir: I did not say the same test. I said, similar test. This is an educational institution, and it undertook the processing of this low grade coal. At the time when this was begun, we did not have information about petrol supplies and we felt that it would be proper to use our coal as far as possible for making synthetic petrol.

Shri Tyagi: Is it not a fact that this proposal of synthetic petrol had once been rejected by the Government on the ground that it would be uneconomical to produce it and use it in relation to other kinds?

Shri Humayun Kabir: That is one view, but we have had two experiences which require at least a reconsideration of the question. Germany used very largely this synthetic petrol during the entire second world war. And we have also the case of the South African Government; they have built a plant with a capacity of 250,000 tons of synthetic petrol. Therefore, where low grade coal is available in sufficient quantities and petrol is not easily available, it is desirable to explore the possibilities and use it.

Shri Tyagi: How does the cost compare with the ordinary petrol?

Shri Humayun Kabir: I have already said that this is being carried on in an educational institution as part of research and it is in the laboratory stage. When the pilot plant produces it on more or less a commercial scale, then we can give figures about the cost.

Shri Goray: Is it possible to get some know how from Germany where this sort of petrol was manufactured and used on very large scale.

Shri Humayun Kabir: This process which is used is called Fischer Tropsch process. Actually, there are two processes for producing synthetic petrol both from Germany. The other process is called Bergins coal hydrogenation process. In this case, we did get from Germany two units of production, namely, the water gas generator and the reactor. The rest of the sections of machine was designed and fabricated in the institute itself which also, I think is a matter of congratulation.

Resettlement of Evicted Persons of Steel Plants

*1243. **Shri Muhammed Elias:** Will the Minister of **Steel, Mines and Fuel** be pleased to state:

(a) whether any plan has been drawn up to re-settle the evicted persons of Durgapur, and Rourkela;

(b) if so, what is the plan; and

(c) whether all the evicted persons have been resettled?