

जोनों को खत्म करने के लिये प्रस्ताव में काफी प्रचार किया गया है। जब किसी चीज का ज्यादा प्रचार किया जाता है, लोग उसको सुनते रहते हैं तो वे समझते हैं कि यह बात ठीक है। अगर किसी झूठी बात को भी दस बार कहा जायेगा तो लोग उस पर विश्वास करने लग जाते हैं और समझते हैं कि यह बात ठीक ही होगी। इसी तरह मे आजा जोन्स के बारे में प्रचार किया जा रहा है कि इनको खत्म किया जाय जिससे देश में अनाज की स्थिति अच्छी हो सके। अगर जोन्स समाप्त कर दिये जायेंगे तो क्या हम लोगों को सस्ता अनाज मिलेगा, अच्छा माल मिलेगा ? जोन्स को खत्म करने से जनता को न सस्ता अनाज मिलेगा और उनकी कठिनाई और बढ़ जायेगी। इसलिये मेरा निवेदन है कि अनाज को सब जगह समानता के साथ बांटा जाय।

इसलिये जो यह प्रस्ताव रखा गया है, उसका मैं विरोध करती हूं। हमें अनाज के महत्व की बात को समझना चाहिये। जब जनता को अनाज अच्छी तरह से नहीं मिलेगा तो देश में गड़बड़ फ़साद झगड़े होंगे और देश उन्नति नहीं कर सकेगा।

5. PM.

जब मंहगाई हो जायगी और कितनी मंहगाई और बढ़ रही है, सस्ताई तो कुछ हुई नहीं, आप लोग शायद जानते नहीं हैं, मगर सब दुनिया जानती है कि कितनी मंहगाई बढ़ रही है, दो पैसे नीचे आते हैं, छः पैसे ऊपर जाते हैं ऐसी मंहगाई काफी हो रही है और संस्कृत में कहा है :

बुभुक्षते किम् न करोति पापम्

जब मंहगाई हो जायगी, किसी को अनाज ठीक से नहीं मिलेगा तो देश में क्या क्या पाप हो जायगा यह बता नहीं सकते।

माननीया उपाध्यक्षा महोदया, चूंकि मुझे मालूम है कि 5 बजे यह खत्म करना है, इस लिये मैं ज्यादा बातें करना नहीं चाहती हूं। मैं फिर इस प्रस्ताव का विरोध करती हूं।

## SHORT DURATION DISCUSSION UNDER RULE 176

RE GROWING UNEMPLOYMENT  
AMONG ENGINEERING GRADUATES  
AND DIPLOMA-HOLDERS IN THE  
COUNTRY

**THE DEPUTY CHAIRMAN :** We come to the Short Duration Discussion under rule 176. The time allotted by the Chairman is 2½ hours. Mr. Dharia, you will take about fifteen minutes and the rest ten minutes each. A number of speakers are there.

**SHRI M. M. DHARIA (Maharashtra) :** Madam Deputy Chairman, this problem of the unemployed educated and particularly of the unemployed engineers, both degree-holders and diploma-holders has agitated the mind of everybody in the country. We are aware that during the last three Plans nearly 13 million could be given new employment. At the same time we are equally aware that the backlog of unemployment at the beginning of the Fourth Five Year Plan was to the tune of 9 to 10 million. Unemployment is of various types. There is unemployment of scientists and there is unemployment of the educated, because we know there are as per the Government figures more than 1,17,000 persons who are educated, who are graduates, but who are unemployed. Then there is the vast mass of uneducated people or partially educated people who are unemployed. Even during this year I am afraid nearly 20 lakh students will appear for the matriculation or S. S. C. examination, and at the most 3 lakh students may be qualified to join colleges or technical schools or may find employment somewhere, and 17 lakh students will be there who shall be reaching that age limit between 15 and 17 who shall be lost in the valley of frustration and shall be loitering in the streets

[SHRI M. M. DHARIA]

for employment. This is indeed a very large problem.

Economic activity in our country could not retain that progress and naturally because of the drought and recession this problem had been aggravated. We know that in our country today there are more than 40,000 engineers, 33,500 diploma-holders and 6,500 graduate engineers who are unemployed, and by the end of June 1968 nearly 40,000 engineers, both diploma-holders and graduates, will be added to this figure. So, in the month of June this country will be having nearly 80,000 engineers who will be out of employment, and it is in this context that we have to think of this problem.

I have gone through the draft outline of the Fourth Plan and it is indeed strange that the planners have also not taken into consideration the problem as it would have stood in the Fourth Five Year Plan. What they have done is they have taken for granted that there will be economic activity, engineering activity to the tune of 11 per cent, and having regard to that growth of engineering activity of 11 per cent. they have made the arrangement for educating engineers to the tune of 11 per cent. For the information of the House may I submit that in the year 1950-51 in our country there were 49 engineering colleges and the actual intake was 4,190. In the year 1960-61 these colleges reached the figure of 86 and the actual intake was 5,908, for the diploma course. In the year 1965-66, the number of engineering colleges increased from 49 to 133 and the actual intake rose from 4,190 to 23,315 for the degree course, and for the diploma course from 5,908 to 43,984. Besides, Madam, I would like to point out that if all the schemes as were envisaged in the Third Plan

had been completed, there would have been the additional capacity for the 4,000 degree students and 3,400 diploma students. If we look at the figures of engineers and diploma-holders in our country, by the end of 1960-61 there were 58,000 engineers; by the end of 1965-66 there were 93,000 engineers. As envisaged by the Fourth Plan there would have been 1,66,000 engineers by the end of the Fourth Plan. Similarly, if we look at the diploma-holders, by the end of 1960-61 there were 75,000 diploma-holders; by the end of 1965-66 there were 1,33,000 diploma-holders; and by the end of the Fourth Five Year Plan there would have been 2,54,000 diploma-holders. The planners say that even after making that much provision, by the end of the Fourth Five Year Plan there would be 13,000 engineers less and 19,000 diploma-holders less than the requirements of the country.

When we look at these figures, we realise that the planners have not taken into consideration the actual needs of the country. It is true that in several fields we have made tremendous progress. In the engineering field we have enhanced the capacity by six times for degree-holders and eight times for diploma-holders; for craftsmen the capacity has been enhanced by ten times; for medical graduates four times, and for agriculture graduates eight times. Madam, I feel that with this rate we shall have to look at the jobs and see whether they were created to that extent, if not, why not.

My first objection is to the failure of planning itself in this country. The Government should have taken care that if this rate of growth is not maintained, if the planning in this country by mobilising resources at all costs is not maintained, we are bound to face these difficulties as we are facing

today. Besides, I feel that the *ad hoc* suggestions coming from the Government today are not necessarily proper suggestions. I read in the Press, but I am not sure, that it is proposed by the Government that hence forward 30 per cent less students will be admitted in engineering colleges and technical institutions. I would like to warn the Government that this is not a proper approach because by saying this the Government admits that after five years when that particular person should be a graduate engineer, he will not be in a position to have that much employment after five years. Thereby Government concedes that after five years this country will be receding back and will not be progressing. I just fail to understand this approach of the Government. May I suggest, Madam, that the first and basic need is co-ordination in the Government between its Ministries? When the honourable Minister of Education comes before the House, he says, "I am concerned only with education; so far as employment is concerned, that is not my responsibility".

**SHRI BHUPESH GUPTA** (West Bengal) : And the Home Minister is concerned with shooting.

**SHRI M. M. DHARIA** : I do not know that.

**SHRI BHUPESH GUPTA** : If the engineers agitate, they are lathi-charged and shot.

**SHRI M. M. DHARIA** : I feel that the Home Minister has remained sympathetic. For the information of Mr. Bhupesh Gupta I would like to say that I myself and Mr. Amrit Nahta took a lot of interest in the problem. We told the engineers who were on strike, we are sitting here, we are pursuing your points. It is not your problem it is our problem, as the representa-

tives of the people. That is why we have given this notice. And I have been insisting everyday; whenever I get an opportunity I raise this problem. We approached the honourable Home Minister and requested him that those who were in jail, those who were under trial, those who were likely to be convicted, they all should be discharged and should be set free from jail. And he was kind enough to do that. I am not saying that the approach of the Home Minister was harsh as Mr. Bhupesh Gupta says. But that is not the point today, that is not my submission.

In order to have that co-ordination, may I appeal to the honourable Education Minister through you and also to the honourable Prime Minister that immediately a Co-ordination Committee under the leadership of the Prime Minister should be formed to look into this problem because several proposals came from the Planning Commission. But then the question is as to who is to implement all those proposals. And there will again be a lack of implementation. In that direction, that is my first suggestion.

My second suggestion is that an All India Technical Corporation should be immediately established because there is need to survey what the problem is today and how many institutes are now providing education in various types of engineering and other faculties. And in that direction, to make a survey and to give them assistance and guidance, such a sort of All India Technical Corporation is absolutely necessary.

My third suggestion is regarding the training courses. The engineer comes out of the educational institution. But immediately he comes out he is not in a position or in a mood; he is not able to go forward with any industry or with

[SHRI. M. M. DHARIA]

any profession to stand on his own legs. So, the training required for a particular trade should also be given through refresher courses.

Fourthly, encouragement to them for starting small-scale industries and loans—if necessary, loans without interest—should be given to these young scientists and engineers wherever they are prepared to start on their own industries on a small scale or whatever scale it may be.

My fifth suggestion would be the replacement of non-technical personnel by technical personnel for technical jobs. In the Ministry of Defence, I am told, there are four thousand posts occupied by non-technical personnel where technical personnel are required and which are technical posts. So, this sort of replacement should take place.

My sixth suggestion is regarding contractors. There are many contractors who are under an obligation under the law to have engineers but they are not obeying that particular provision of the law. They should be forced, and they should be asked to employ engineers for big contracts.

My seventh suggestion is regarding foreign collaboration. This country should not go in for foreign collaboration for trifling matters where indigenous technology is available. That should be left with these engineers and with these technocrats in this country. And wherever the foreign collaboration is to take place for any vital industry or any vital purpose, the approach should be to absorb our personnel to the extent possible. I know that for trifling matters there are engineers and experts from foreign countries in several collaborations that have taken place. It should be avoided.

My eighth suggestion is about introduction of technical subjects for the I.A.S. and I.F.S. examinations and about raising the age-limit because there are several posts which are executive posts. Where will these engineers go? They should be allowed to appear with these technical subjects in such examinations, by even raising the age limit which is 23 or 24 today.

My ninth suggestion is regarding the various Ministries where such personnel could be employed. I am told that even today if this Rural Manpower Project which was envisaged in the Third Plan was taken up, a lot of technicians could be employed there. You may be aware, Madam, that a provision of Rs. 150 crores was made in the Third Plan for the Rural Manpower Project. And how much have we spent?—only Rs. 19 crores, because funds were not made available. Why have they given up the Rural Manpower Project?

Similarly, I am told by the respected and honourable authorities of the Ministry of Communications that a lot of space is there for accommodating several scientists and engineers provided some funds are made available to them. Similarly, in the minor and medium irrigation schemes also a lot of engineers could be accommodated.

If it is not possible for this country to absorb the engineers that are produced in this country, well, I feel that the Government should not come in the way of these youngsters, if they are having any bright future in foreign countries, to go there. They should be allowed to go to foreign countries. Let them go over there. They are the sons and they are the daughters of this mother-land. After some years they will come back with a better knowledge

and a better technology, with advanced knowledge in science that is available there. So, in that respect, such sort of facilities that are required should be given to them if we cannot absorb these engineers here in our country.

My tenth suggestion is regarding . . .

**THE DEPUTY CHAIRMAN :** I think this is the last suggestion because your fifteen minutes are over.

**SHRI M. M. DHARIA :** I will take only two minutes.

**MISS M. L. MARY NAIDU (Andhra Pradesh) :** You can have my time also.

**SHRI M. M. DHARIA :** Thank you.

**SHRI BHUPESH GUPTA :** Can you pass on some of your time to me? You can divide.

**SHRI M. M. DHARIA :** Madam, I am only giving my suggestions.

My tenth suggestion would be that construction and industrial co-operatives for these engineers should be immediately encouraged and for that necessary credit facilities should also be made available to them.

Then the Planning Commission should be asked to have some forward plans because we should know what is the actual number of specialists in various fields. Then, we should also know in what industries and in what schemes how many engineers would be absorbed in days to come. We should have that sort of plan where these engineers and doctors and other trades could be accommodated, that should be based on the needs and requirements of the country.

So far as the Education Ministry is concerned, I feel that the time has come

for a dynamic change. Let us take into consideration the advance in science and modern technology and in that respect, let its system of 1930s and 1940s which is being continued should be immediately stopped. Let us take into consideration the length and breadth of this problem. And I may say that there are several fields in which we shall have to take the new engineering specialists. Nuclear engineering, space technology, petrochemical engineering, in all these new subjects which are now governing almost the major part of the economy in several parts of the world, they should be given priority.

I feel that this Government should immediately change its approach towards the youth. I feel that the youth has been neglected in this country. In the First Five Year Plan, there is a proposal for creating a National Youth Board to take into consideration the aspirations of the youth, to understand the problems of the youth, to canalise the energies and the spirit of the younger generation properly. Unfortunately, even that demand for Rs. 5 crores has not been met by the Government. I just fail to understand why this Government should not say today, why this country should not come forward to say, that so far as these problems of the younger generation are concerned, the difficulty and problem of money will not come in the way; we shall go anywhere that we have to go to mobilise all possible resources by whatever means possible, and we shall see that this problem of youth, the youngsters, is solved. And it is in that spirit that I would appeal to the Government, please do not treat this matter in the way it has been treated so far. It is a serious problem. It is a pointer to the country. If in due time the aspirations of these

[Shri M. M. Dharia]

youngsters are not realised by the Government, if they are not given proper protection and proper facilities, I feel the whole democracy and the whole sovereignty of this country would be in danger. These youngsters who are a great force and a great source if their aspirations are not respected, they will go astray and then in that case, we shall not be in a position to blame the younger generation. And it is in this spirit that I would like to initiate this discussion.

Thank you.

DR. M. M. S. SIDDHU (Uttar Pradesh) : Madam, it has been a sad scene which is being witnessed before the country that those students who are to receive their degrees, by hard work for five years, at the convocation which is a very solemn occasion for them, instead of receiving those degrees, they want them to be torn into pieces.

[THE VICE CHAIRMAN (SHRI M.P. BHARGAVA) in the Chair]:

Why have they become so desperate? Why is it that happening? Is it due to the fact that their training is bad? Or is it that they are having some lofty ideas which they could not fulfil? Or is it that, when they have to face the hard realities of life, they feel that training and skill are wanting in them? If a doctor after some years of training cannot feel himself confident to treat the patients or if an engineer after having received the best skill has to find jobs of a type other than for what he has been trained, then there is something totally wrong with the training that we give to them. I was travelling about a week back and I found a first class graduate from one of our five I.I.Ts., from Bombay. I asked what he was doing. He was a salesman of a reputed firm which

deals with household medicines. I asked him why after having spent that number of years and also having received a scholarship—because 70 to 80 per cent. of these students receive scholarship when they are undergoing education—why on earth he had taken to this job which he could have easily done after his B.A. or B. Com. He said he was forced to do it. Now a boy who is an Engineering Graduate going from shop to shop to sell household remedies—there is nothing wanting in him. It is not that he does not want to work with his hands but there are no opportunities to work—why is it that having had the skill there have been no opportunities for him? Why could he not, by his own, start some industry? Why could he not start even a small repair shop? It is because the Government, after having trained him, does not give him any facilities whatsoever. If he asks for raw material he will not get it. If he asks for a licence, which is a very tedious job, he will not get it. Every youth, when he comes out of the college, he is more of an idealist. He wants to work in a fair way. He does not want to go the way of trade where he will have to be humiliated, where he will have to use other means to get things done. He abhors it. He does not yield to evil. The result is that either he goes in for strike or litters about and becomes a drain to his father whose income by that time would also have been reduced. The Education Commission comes in and says that the boy should not go to humanities, that the boy should not go to Universities, that he should be diverted to skills. And he is directed, after his Higher Secondary, to skills and is given a Diploma. And what is his fate?

Madam, why is it that planning which should have taken care of the skilled manpower that is available and

would have created wealth has failed? It is because we have an eye, not on ourselves but on foreign collaborations and their technical advices. Why is it that Western type of industries are being recommended rather than wealth being created in our own country? May be the produce is crude, may not be so sophisticated, may not be able to look so good. But it will be ours. It will give opportunities to our young scientists to struggle hard. We do not give them any opportunity to create new inventions because the industry will not take them. We do not give them new jobs because the contractual system cannot be done away with. If the works in the Central Public Works Department and the Defence and others were to be done departmentally, may I know whether there will be a shortage of technical manpower or will there be a surplus? Even after so many strikes, I should like to know from the hon'ble Minister, how many jobs are being done, how many works are being done departmentally.

Every skilled person—and our hon'ble Minister is an Engineer himself—saves. He saves on material. Take an ordinary person who goes to build a house. He spends more in iron and steel. But an architect will give more accommodation and will give a better look to the house and still save. In our country we have not taken into consideration the fact of life. Unemployment has been allowed to go on and still it has become a prestige for each State to have more medical colleges and more Engineering colleges than to provide jobs for them.

It is unfortunate that still a person must be a domicile of a State in order to get employment in that State. Why is it so? You will find that the State Public Service Commissions have a

clause that a person should be domiciled in that State.

**SHRI M. V. BHADRAM** (Andhra Pradesh): Even for college admissions.

**DR. M. M. S. SIDDHU**: If we are working in that frame of mind and if we are unable to take advantage of the manpower, especially of the skilled manpower that we have created, I do not see how we are going to solve the problem of our country. If Engineering graduates cannot be employed on works which will create more wealth, from where shall the wealth come? Who will give us wealth? These are the persons who, if they were properly employed, would have created wealth.

Not only that, I may say, go to any medical college, go to any University, you will find 20 to 25 per cent. of the costly instrument lying idle for one or two repairs. And still we have technicians and skilled persons available who can put these things in order. Has anybody ever thought of the number of vehicles, jeeps of the Health Department of which I know better, which are on the road and how many of them are lying idle in certain garages? It is because we do not want to get them repaired departmentally. We want to get it done through contractual labour, through contracts, through garages in which other interests are involved. Our government workshops have not been able to produce the best. Why? Therefore, I would have to say that the whole scheme of training of skilled labour should be reoriented so that when a youth comes out of the college he has the confidence, he has the capacity to face the future.

When I became a Medical Graduate I did not go for service. I did not apply for it. Today a Medical Graduate feels

[ Dr. M. M. S. Siddhu ]

it difficult and diffident to go for practice. The earlier boys, if they were not selected for a post, did not bother because they knew they had some skill and they could earn manifold, more than what he would have got in Government service.

(Time bell rings)

Therefore, Madam, this problem of unemployment among the technical people is of a serious nature. And what is worse, there is a conflict going on between a technocrat and a bureaucrat. Today a bureaucrat who should have yielded place to a technocrat is holding fast to his ground and the result is that our public undertakings are being manned instead of by technocrats by old persons who are retired, who are superannuated and in bad health. These persons are manning our riches and our resources while the younger persons are loitering on the streets.

MISS M. L. MARY NAIDU: Madam, thank you very much for giving me time. Though I am giving a little of my time to Mr. Bhupesh Gupta.....

SHRI BHUPESH GUPTA: How much?

MISS M. L. MARY NAIDU: Any amount.—I have only a few points to suggest. Some Engineers have written to me saying that they would like to sit for the I.A.S. Examination but the Education Department does not give them any facilities. I request that whoever wants to sit may sit for the competitive examinations.

THE MINISTER OF EDUCATION (DR. TRIGUNA SEN): There is facility.

MISS M. L. MARY NAIDU: B.As., not B.Es. An engineer who wants to compete for the I.A.S examination

please see that he is given that facility. Please see that this is provided. That is number one.....

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): There are quite a number of engineers in the I.A.S.

MISS M. L. MARY NAIDU: On the top, you may have given. But they create troubles. There is always this red tapism and any amount of trouble is being given and they are not allowed to enter it. So please see that they are given that facility.

Then, secondly I would like to say that automobile engineers can easily be helped by the Government to open shops for repairs and other things. In Delhi itself every man who owns a car or a scooter complains that there are hardly any places where they can get quick service and quick help for repairs. Why doesn't the Government give facilities for the engineers to form a sort of corporation and open these engineering workshops and see that they are employed? I know that the Government has got a scheme where if a person gives Rs. 50 lakhs or Rs. 50,000, the Government will give another Rs. 50 lakhs or Rs. 50,000 for starting small-scale industries. But that is only going into the hands of the rich people who can come forward with such big sums. So whatever the Government can give it should give to the engineers who can form themselves into a sort of company. They cannot give you a pie because for their study itself they would have spent enough, even to get seats, they have to pay Rs. 4,000, Rs. 5,000, Rs. 6,000 and so on. So their parents would have spent everything, and they cannot come forward with any more money to invest. So it is up to the Government to give them whatever it can to help them form into



groups of four or five engineers and give them facilities to open these shops.

Then, what about research? The research part of it is lacking a lot in our country. I think you do not give even as much as Rs. 25 crores for research. I have heard in many songs from my childhood that we have got untold wealth underground in the shape of gold, silver and other minerals. But what are our engineers doing? Why don't you give them facilities to find out where they are, to explore, and dig them up? Why should we buy gold from outside? Even the buried gold is there. Our forefathers had been burying gold here and there and not telling them where it was. Please employ your engineers to see that it is all dug up. Apart from the mines, there is an untold amount of gold, buried underground in order that the foreigners and others do not take it away from our country.

**SHRI BHUPESH GUPTA:** Some gold has come overground and it is in the treasury benches.

**MISS M. L. MARY NAIDU:** I do not believe it; I do not blame them for that at least.

**SHRI M. N. KAUL (Nominated):** He means the treasury bench.

**MISS M. L. MARY NAIDU:** Please see that our mines are fully explored and our research is improved.

**SHRI A. P. CHATTERJEE (West Bengal):** Engineers to do exploring of mines?

**MISS M. L. MARY NAIDU:** Why not? I mean in collaboration with other people. Engineers are also needed there.

Then about minor irrigation. If you go to the villages, you will find that there is a lot of work that the engineers can do. Now, in the cities you have got so many doctors. Now, you have been taking written promises from persons concerned that they should work for a certain number of years. But I would suggest that henceforth you should take a promise from every doctor that they will serve in the villages.....

**THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA):** They should not be awarded degrees if they have not completed six months of work in the villages.

**MISS M. L. MARY NAIDU:** I would want at least one year...

**SHRI A. P. CHATTERJEE:** On a point of order, Sir. Can any suggestion come from the Chair?

**THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA):** Why not?

**MISS M. L. MARY NAIDU:** They must give a bond that they will go to the villages after they take their degrees. And not only that, you must give them extra allowance for working in the villages. You are giving extra allowance for people working in the cities like the city allowance, town allowance, etc. This has made them all to come to the cities and the towns. So this should be stopped and extra allowance should be given to those who go into the villages. The more interior the village, the more they should be paid. This will be helpful because there are hardly any doctors in the villages; but the cities are overcrowded with doctors.

**DR. M. M. S. SIDDHU:** May I say that there are certain States where the

[Dr M. M. S. S ddhu]

Government has not been able to employ the persons who have given bonds and that doctors are going to meet with the same fate as the engineers?

MISS M. L. MARY NAIDU: I want that doctors and engineers while they are being trained, should be told that they should not depend on the Government for jobs. Some subsidy can be given if they go to the villages and start something there. But they should not always go to the Government for jobs. I don't think they do it in any other country. But some subsidy can be given to those who go and start some work in the villages. You should also impress on the local bodies that they should give them, engineers and others, proper pay and better facilities for doing their work. I donate the rest of my time to Mr. Bhupesh Gupta. Thank you for giving me this opportunity to speak.

SHRI M. PURKAYASTHA (Assam): Mr. Vice-Chairman, Sir, the problem of unemployment among engineering graduates has assumed serious proportions. I congratulate the students of the Roorkee University for organising a demonstration at the time of the Convocation and bringing the seriousness of the problem to the notice of the nation. They were followed by the students of Chandigarh and Jabalpur universities and ultimately the All India Engineering Students' Association had to organise a satyagraha in front of Parliament House; and that is why we are discussing this matter to-day.

Our Government will not notice anything unless there is an agitation, unless there is a demonstration, unless there is lathi-charge, unless there is shooting, loss of life and loss of property,

In 1947, we had 33 engineering colleges and 53 polytechnics turning out yearly 1,270 graduates and 1,440 diploma holders. To-day we have 118 engineering colleges and 248 polytechnics turning out 14,000 graduates and 25,000 diploma holders every year. The engineering colleges and polytechnics are not the only institutions which are turning out graduates. I have before me a bulletin of the Institution of Engineers of India. This Institution of Engineers also produces every year about 1,000 graduates and they had on their roll as on August 31, 1967, 40,507 students. It is a professional body and it is allowed to conduct examinations for engineering students. Besides these organisations, there are the Aeronautical Society and the Institution of Tele-Communication Engineers who are also conferring degrees on students. Besides these, the Institutions of Mechanical Engineers, Institutes of Electrical Engineers, Chemical Engineers, Electronic Engineers, the Royal Aeronautical Society, and the British Institute of Radio and Electronic Engineers of U.K. are conducting examinations in this country and conferring degrees and diplomas on students. Mr. Vice-Chairman, you must have noticed the advertisements of the British Institutes which are regularly published in different papers of the country. We find that they are also conducting postal courses for as many as 22 diplomas and degrees in engineering. We were alarmed to note in the "Patriot" a report published on March 3, 1968, where it was stated that the Union Education Ministry has asked the State Governments to slash admissions to engineering colleges by 30 per cent in the coming academic year. The cut in polytechnics will be somewhat lower. If this decision is really true, then I should say it is a short-sighted decision. It has not taken

into account the whole problem that is before the country. I would suggest that if these examinations conducted by the British Institutes are banned in India, then the number of graduates turned out by the engineering colleges can gainfully be employed. So the first task before the Government is not to slash the admission to the engineering colleges in the country but to ban the examinations held by the British institutions in this country. In this way they will also save a lot of foreign exchange, because they not only pay their examination fees but they have to pay their membership fee continuously year after year. It is estimated that our Government spends on an average about Rs. 7,000 for the training of an engineer but these private institutions do not spend a single pie. Rather they extract huge sums of money from the students. They confer degrees on the basis of "No pass, no fees". Why this engineering education is given the opportunity to be commercialised, I fail to understand. I do not find the Planning Commission in assessing their requirements of engineers have ever assessed the engineers produced by these private institutions. I would request the Education Minister who is a distinguished engineer himself to look into the matter, to have a probe and see that these private institutions are no longer allowed to conduct examinations.

Sir, in 1950 the International Labour Organisation prepared a report outlining the action to be taken against unemployment. The report mentions three major types of unemployment as follows:

(1) Unemployment arising from deficiency in effective demand;

(2) unemployment arising from shortages of capital equipment or other complementary resources; and

(3) unemployment arising from lack of correspondence between the demand for labour and particular jobs and the number of workers who are qualified and available for these jobs.

We find that in our country the job opportunities for qualified engineers have not been properly assessed. You know there are apprentice courses in all major industries, all public sector undertakings and all defence installations. If a minimum qualification is laid down for this job training, for entrance to apprenticeship course and defence installations, I think this wastage of manpower, of engineering talent, will be greatly remedied. Unemployment among engineers is not to be viewed as we view the unemployment of skilled and unskilled graduates, because during the last few years the cream of our student community has been drawn to engineering education and if they roam about in the streets for employment, it will be our great folly for not using that talent. Therefore I would suggest that the engineering talents should be fully utilised as soon as possible. I would suggest that the contract system should be abolished forthwith, because there are so many engineers surplus to our requirements. If we move about, what do we find with our roads? We find they are in a pitiable condition; there is defective construction of buildings and the condition of our bridges is deplorable.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): It is time for you to wind up.

SHRI M. PURKAYASTHA: Yes, Sir, I am winding up. If we go to the

[Shri M Purk ya tha]

market, we find that the goods produced by our engineering industries are not up to the mark. Therefore I would suggest that this contract system should be abolished and departmental works be taken up and gainful employment be provided to these engineers.

Well, I had some other things also to suggest but as the Vice-Chairman wants me to wind up, I would lend my support to the suggestions made by Shri Mohan Dharja and I would request the Education Minister to implement those suggestions. Thank you.

SHRI A. G. KULKARNI (Maharashtra): Mr. Vice-Chairman, increase in the lack of job opportunity to engineering graduates has recently assumed alarming proportions. The gravity is very serious not because that large number of young personnel is unemployed but because it will create frustration in the minds of those youths who have spent a major part of their life in educating themselves but have failed to connect that education to an opportunity to earn honourable living. I feel this frustration is of vital importance in the light of student unrest in the country.

The proposals recently mooted by the Planning Commission are more in the nature of palliatives than going to the basic roots. Why this huge army of technical personnel which can be a legitimate pride of any nation is facing unemployment which will create a social tension of a violent nature, that is what we have to see.

I appreciate the suggestions of the Planning Commission as regards pumping additional funds and finding jobs either in the army or elsewhere but the steps now proposed are the result of Plan delays.

I am really concerned with the basic character of technical education which is not industrially oriented and the curriculum has been drawn by such persons who are educationists but who have no practical experience of running an industry. Have these respected persons ever thought that increasing participation in the day-to-day management of industry and trade requires a special aptitude and this has to be developed through education? I remember an old-age idiom where it is said that though education is like a horse, experience is like a horse rider. Where is the opportunity for a student while undergoing education to participate actively in workshops, trade or vocation, he chooses to undergo to learn to take risk and to take decisions?

Educationists have found fit that after every degree in the technical field the student should produce a certificate of having worked in any factory and which is enough to make a student competent to enter trade and industry. In the present conditions where the certificate can be had very cheaply, the final product is our engineer who has acquired certain theoretical knowledge by cramming the p notes.

The basic atmosphere in the Universities, that if a student does not get a certain percentage of marks means an utter failure in life, has created the dependence of these young students on the ritual of getting marks to get a degree. This must be done away with. The student must be watched during his educational period and encouraged to develop his aptitude to work in the factory and take decisions in the job he has been allotted.

There is another aspect that in the Regional Universities there must be a close coordination between the Industrialists and commercial magnets of

repute to be co-ordinated with drawing of curriculum for the technical and commercial degrees and even though these industrialists may not be having regular degrees, they should be invited to address the students as a regular feature of education which should re-orient the student's mind to qualify better for the job. This has been practised in the Regional Universities at Kohlapur and Poona. I do suggest that it should be emulated all over the country. This should not be taken as an 'Informal ritual' but should be implemented as a basic re-orientation of close liaison between industry and education. I am sorry to say that instead of cooperation between industry and universities, there is at present rivalry and the Educational Pandits look down on the successful industrialists. This must end.

There is also a necessity of introducing shorter refresher course for Accountancy, Salesmanship and Secretarial practices which in the Western countries are found more useful to give proper placement to the students. In connection with the Government's intention to encourage Technocrats to enter into industry, I am sorry to say that this is nothing more than a hoax. This is only a lip service because we have learnt from the experience of the last twenty years, that there is no worthwhile progress in the Government assistance to the small scale industries sector. The liberal assistance to the small industries is enshrined in the policy statements of the Government of India in various 'Plans' but actually the implementation is always opposite to what the Government desires. The hesitant and half-hearted bureaucracy have got no faith in small industries as a means of development. I, therefore, suggest that coordination between different Ministries of Government is of far more importance than only vocal

announcement which add to the frustration because in actual practice where few technocrat-entrepreneurs have been benefited.

The crux of the problems is the definition of credit worthiness to be entirely re-oriented where knowledge and technology will be supreme and hereditary asset due to birth and richness will be relegated to a back place. I do not find the Government of India will even at this time share their complicity in discriminating between small and big industry. The delay in the plan, that is, the investment resources being not there, how will there be a climate for the entrepreneurs to take aggressively to the industries, at least I fail to understand with my little experience.

In this respect, the latest Budget has thrown much light. It points out at that time that there is utter lack of provision for financial assistance to the small industries schemes like hire-purchase of machinery, granting of loans and making available foreign aid. Where is the provision there and unless that provision is there, what is the use of the talk of the Planning Commission about creating Cooperatives of Entrepreneurs? I may say with regret that the late Mr. Barve introduced such a system in Maharashtra when he was the Minister for Industries and I know about its utter failure because ultimately the bureaucracy did not cooperate. The entrepreneurs never got the money from any bank whatsoever because of the credit-worthiness definition being not re-oriented.

There is also a suggestion to increase investment in electrification and irrigation. This is of paramount importance. Here also I have my experience. In the Zila Parishad Scheme in Maharashtra particularly, the engineers are being employed for 3 or 4 months during their vacation and they get reward

[Shri A. G. Kulkarni]

which can give them also the experience in the working of such schemes. Unless massive investment is made in electricity and rural electrification and in the energisation of these wells, this type of work cannot be thrown open to a vast number of people.

I have another suggestion to make. When two years ago I had been to Canada, I found out various Indian engineers employed there. At that time we in the delegation thought actually—I mentioned it on the previous occasion—that the engineering graduates of this country were really a potential export earner. If they go abroad and work there and earn money and send it, it is foreign exchange. It is not only commodities that we should export. It is human technocracy that should also be exported to Canada, U.S.A., Brazil and Australia where there is vast demand for engineers. I would like to exploit that source by which we will get foreign exchange and the students will get more confidence in their lives.

Lastly I have got a word of 'Caution'. With my humble experience in the Industry I again request that drastic decision of limiting admission to Technical Institutions should not be indulged in because it takes five years to create a Technocrat. We have had half-hearted policies every where—in regard to sugar, food, etc. Why I am against the curtailment of educational facilities to the students is because I see that in countries like Germany and Japan a technocrat is supposed to be an asset worth lakhs of rupees. His worth is very great. So we must try to understand the intrinsic value of a technocrat and if the technocracy of our country develops, we can take to atom bomb or other sophisticated manufacturing schemes in this country. So in

that light, I do plead humbly with the Education Minister : 'Please do not again announce that you are curtailing the educational facilities' because that is the only asset of this country by which we will grow and we will develop.'

SHRIMATI LALITHA (RAJAGOPALAN) (Madras): Mr. Vice-Chairman, the problem which we are discussing about unemployed engineers is a very very grave one because the engineers are the builders of the nation and if they are not given proper jobs or facilities or amenities to come up, how do you expect the nation to be stable? In this connection I would say that in the past 20 years after we have had freedom, we have progressed in so many spheres in a remarkable way. I should say that regarding the unemployment problem, we are still on the same boat, whether it be in the technical sphere or in any other matter. Now, the problem of unemployed engineers and their consequent agitation has brought to light the magnitude of difficulties they are facing as well as the difficulties of the Government. On the quantitative side, during the current plan period, 1956—71, the technical institutions are expected to produce about 88,000 graduate engineers and 1,30,000 diploma holders. This year alone we find 14,750 engineers and 25,000 diploma-holding technicians. Where is employment for them? Does their knowledge go to waste? And what is Government going to do about it? This is a recent newspaper cutting in which it says that in Bihar about 2,000 graduates and 10,000 overseers are unemployed or underemployed. To add to this as many as 13 Divisions of the Public Works Department were to be closed down with effect from February 29. It means retrenchment of engineers as well as contractors, supervisors and everybody. Ten more Divisions are to be

closed, Divisions of lateral road projects. If for want of funds we are to postpone or close down projects like the Gantak project, what will happen to our engineers or technicians or overseers or other people who are working in this field? I just cannot understand how the Government can do this knowing very well that already the unemployment problem among them is very grave. I would like to make some suggestions regarding this problem. In the public undertakings I would like to point out that all non-technical persons should be replaced by qualified technical persons wherever possible, wherever only technical experts are needed. And secondly I would like to say that private sector undertakings including construction engineers, contractors, and so on should be forced to take these engineers, these graduates, or diploma-holders and others.

Then I would also like to say—we are giving aid to all our neighbouring countries including Nepal, and I would like to persuade the Education Minister to see if he could send as many engineers as well as technicians as possible to these countries at least for temporary employment.

Then just now Dr. Siddhu pointed out that it is a question of not only engineers, that doctors are also affected, and I do entirely agree with him. It is high time that we realised that the craze to study in engineering and medical colleges had been going on, but now at least we have to see that there is a diversion from there. Now in the present plan we have given more emphasis to agricultural production; we have given top priority to agricultural production in the current Plan, and in this connection I would

like to point out to the Education Minister to divert these students to other spheres by opening more agricultural colleges so that they can be utilised in the agricultural colleges. The dignity of labour and the dignity of knowledge lies not in medicine and engineering alone. They can prove their worth in making the country a stable one in the matter of maintaining and stepping up this year's level of production by educating themselves in the agricultural sphere and utilising their knowledge in raising our agricultural production still higher.

Lastly, I would like to say that some time back a deputation of engineers met the Prime Minister and presented a memorandum to the Prime Minister. In that they have asked for a lowering of the age of superannuation to fifty-five years. I really think that, when they are talking so much about engineers, that there is dearth of jobs for them, they should see that older people are not there still sticking to their jobs, people who are also not experts in their field, and the younger expert talent should be utilised if we want the country to progress in the way we expect it to, if we want to attain our goal of democratic socialism. I would also like to say that the participants who have been speaking, Mr. Mohan Dhar and Dr. Siddhu, have very clearly analysed the whole matter, and I think the Education Minister should take serious note of the whole thing and alleviate the whole problem of unemployment which our engineers and technicians are facing. We should see that they have their right place in the country. Thank you.

SHRI KRISHAN KANT (Haryana):  
Mr. Vice-Chairman, Sir, Dr. Seta would remember that it was exactly ten years back, in the last week of March, Pandit Nehru brought forward the Scientific

[S'r K. Shan K'mt]  
 Policy Resolution before the Lok Sabha. It was in the year 1958, exactly ten years ago. I do not know how Pandit Nehru's soul, if it is there, must be feeling. What has happened to that Scientific Policy Resolution? One sentence in that Scientific Policy Resolution was that human material is the most important wealth of a country, specially the trained engineers and technical people. And we find that in pursuit of that Resolution we have created a number of engineers and technical people, but we have not been able to utilise them. I do not think it can be a very flattering compliment to the Planning that we have done up till now. I think there is something basically wrong in our economic policy and the execution of it, for which I would request the hon. Minister to look into it. This problem of unemployment among engineers is not a recent one; it has been growing over the last few years. But, as Mr. Purkayashtha said, only when things come on our head, then only we stir ourselves up to become careful, to take care of them. I wish this thing had been looked into earlier. Dr. Zakir Husain himself recently, last year, had occasion to say that twenty-seven lakh people were on the live register out of which nine lakhs were undergraduates and matriculates and one lakh consisted of graduates and post-graduates. If this was the condition, I do not know why we had been silent up till now. Now, Sir, the Government of India studies, the studies undertaken by the Government of India have always been misleading to us. Now the study made by the Institute of Applied Man-power showed that there was not much unemployment among the engineers. On the other hand, the 1961 census showed that unemployment among scientific and technical man-power was 10.4 per cent, that among engineering

graduates it was 3.7 per cent and that among diploma-holders was to the tune of 50 per cent. Then at the All India Economic Conference it was revealed that the unemployment had been increasing at the rate of 7 per cent. Then the CSIR Survey showed that unemployment among scientists and engineers was 35 per cent and 40 per cent. Now the one solution which the Government of India has brought before us is curtailing or curbing admissions to the engineering colleges. I do not know why after the positive approach of so many years a negative approach has been brought in. It may produce the psychological effect that there is a curb placed on the turning out of engineering graduates, that there is curtailment in admission to engineering colleges. But we must know that a graduate engineer is produced after five years' time. As a result of what you are doing now, after five years the number of such people coming out will be much less than we may want then. Shall the rate of industrial investments not increase in the next five years? Shall the rate of industrialisation not increase in these five years? If so what shall we do after five-years? Shall we import engineers then? Shall we go in for foreign collaboration then to get engineers? So this policy of curbing or curtailing admissions to engineering colleges is a negative policy and it will, in the long run, prove a very suicidal policy. I hope the hon. Minister knows that the engineering man-power in the country in relation to the total man-power in the country is already among the lowest in the world. Now, in order to fill up gap what are we doing? We are curbing or curtailing admissions to engineering colleges. The problem is not over-production of engineering man-power, but lack of pursuing a certain economic policy. I hope this time, just as we dealt with the agricultural problem in 1952, we are dealing



with the recession problem now, we are dealing with the engineering problem now, and are seeking solutions. For a basic solution to the problem of recession we must have built-in and in-built industries where we can put more engineers in the working of industries, put more engineers in the co-operative sector, to manage things. The problem can be solved if production can be diversified, where we can think of more absorption of experts, engineers in this case.

Another point which I would like to bring to the notice of the hon. Minister is that our recruiting policy has not been a very effective policy—whatever the hon. Minister may say. It has not been an effective policy in the matter of recruitment in defence industries, which I have often been bringing to his notice. Even the Survey by the CSIR showed that 20 to 30 per cent of the posts in the I.I.Ts' agricultural colleges and all that remained unfilled. The vacancies are there but there is no proper method to properly recruit the hands in time. He probably knows that through the U.P.S.C. 200 geologists were gradually recruited, but they have not been given posting orders. Can he ensure that what is given in the statement, that that number of 15,000 to 20,000 men will be recruited and posted? Can he ensure that they are really posted on to jobs that are vacant and that they are not roaming about in the streets? So the main problem of recruiting policy must be fully gone into so that there is no delay and people go into the jobs at the proper time in the quickest possible time. I am sorry that even in the recruiting policy there is some favouritism. I have a very pertinent example, a glaring example, and it is regarding a Ph.D. in agricultural engineering. You know, Dr. Sen, that there are very few Doctors in Agricultural Engineering.

Now he came back after studying in America. Now he had gone there after selling about ten acres of land in his home district. Now he went over there and came back. He wanted a job. So he met the Agriculture Minister. The Agriculture Minister circulated his particulars in the Ministry. This was about six years back. And then what happened? There was no post for him. He went to the U.P.S.C. He went to the I.A.R.I. What happened? For some posts his qualifications were much higher. For other posts more experienced people were required. What ultimately happened? He joined as an Agriculture Inspector on Rs. 150 in Ludhiana.

That is how we are treating our engineers, our scientists, our technicians. I would like to tell the hon. Education Minister that this problem of the engineers has come before us today. But the problem of the scientists, the geologists and others will come next year because you are going to add and increase the number of unemployed people next year if you do not solve the problem now taking a perspective view of things and then things will become more and more difficult.

One very basic decision which the Government of India will have to take is about foreign collaborations. I feel whatever investment we make on foreign collaboration is not giving the country any benefit as far as the human material is concerned because if you invest even a crore in such collaboration, it really does not employ our engineers but actually hinders the possibility of Indian engineers who can be properly utilised. I say this because a crore of rupees invested in such foreign collaboration means employment to the foreign engineers in their own country and the things come up to our country in

[Shri Krishan Kant]

a finished form, we have package deals and we get the entire plant, we do not import the know-how but the entire plant, as I said, down to the last nut and bolt. If we borrow only the know-how then our engineers would have enough to work on. They could have done the designing and all that here. Dr. Bhabha gave us a very good draft for foreign collaboration agreements when we consider entering into such agreements. He gave it in his report on the electronics industry. I wish all these points which he gave us in that draft were followed. I hope that they will follow them in every foreign collaboration agreement which we may enter into. In that draft he has given what all things should be done and what all things should not be done. That will be a good guideline.

Mr. Vice-Chairman, I submit that the main policy of our borrowing technology should be governed by certain basic tests. Our borrowings should stand these tests. They are, firstly, have we advanced in technological competence by such borrowings of technology for the past fifteen or twenty years? Secondly, can we list the items on which we have acquired competence and need not borrow technical know-how again? Thirdly, are we absorbing the technological competence or knowledge? Or have we to borrow it again next time also? Each technical collaboration calls for a substantial investment in internal development of technology for future self-reliance in the item. This is how imported technology can be absorbed and technological competence built up. May I in this context draw the attention of the Government to a survey conducted recently into what kind of technical collaborations have been worked out during the last twenty years? There were some 4,000 such technological collaborations in this country and

between 1957 and 1963 there were agreements at the rate of  $4\frac{1}{2}$  agreements per week. From 1961 onwards there were 250 collaborations per year. And do you know the type of collaborations entered into? There were 7 agreements for ready-made garments, 9 for electric meters, 12 for water meters, 11 for transistor-radios, 9 for chip-boards, 7 for plasticisers and 40 for iron and steel castings. And although we can produce good porcelain wares we had collaboration for table-ware and sanitary-ware. Recently in a meeting of the Indian Electric Manufacturers' Association they said even when capacity was available, import licences were given.

**THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA) :** Mr. Krishan Kant, it is time you wound up.

**SHRI KRISHAN KANT :** I am just finishing. When surplus capacity was lying idle in this country we did not utilise that capacity but gave import licences and foreign collaborations were entered into even for expansion of existing units and in some cases the collaboration was being continued only for the purpose of associating the name of that foreign concern.

**THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA) :** You have to finish now.

**SHRI KRISHAN KANT :** Yes, Sir. I am just finishing. The main thing is that there should be proper technological planning, not merely financial planning. There should be proper planning on the basis of resources, expertise and everything. I just want to wind up by saying that this basic question has now arisen about the employment of our engineers. If the Government of India does not solve this problem now I am afraid even more problems will come up in the future and our faith in

our economic development will be shaken. Only one thing more I will say. Dr. Man FRS. after coming from China said, "By importing technology India has gained a few years, but in the process and in perspective, she has lost the future which China has gained". I would like the Government of India to give proper heed to these words because that way lies the solution to the problem of our engineers and of our engineering manpower.

**THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA):** The Prime Minister.

**THE PRIME MINISTER, MINISTER OF ATOMIC ENERGY, MINISTER OF PLANNING (SHRIMATI INDIRA GANDHI):** Sir, I do not wish to take the time of the House except for a minute or two because I want to thank the hon. Member Shri Mohan Dharia for having raised this very important issue in the House. Government is deeply concerned with this problem and I can understand the feelings of hon. Members.

**SHRI BHUPESH GUPTA (West-Bengal):** The Prime Minister is intervening in this debate, but surprisingly enough not one opposition Member has spoken.

**THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA):** The reply will be given by the Education Minister.

**SHRI BHUPESH GUPTA:** That is all right, but.....

**THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA):** She probably will be declaring the policy.....

**SHRI BHUPESH GUPTA:** That does not matter. That is not the position now. You see, I do not get

up except on certain, principles. All who spoke were from the Government benches and not a single one was from the Opposition.

**THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA):** There is no question of principle here. I am going exactly according to the list.

**SHRI BHUPESH GUPTA:** But the Prime Minister's name is not here. The Prime Minister can speak after some Members from the Opposition also have spoken. She is intervening on behalf of the Government. It is not anybody who is speaking.

**THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA):** She is making the policy of the Government known. She is not replying.

**SHRI BHUPESH GUPTA:** How do you know? What is the meaning of having this intervention? It is not being made by a Deputy Minister or a Parliamentary Secretary. It is the Head of the Government who is intervening. Certainly Mr. Sen also will have his say on this matter, we know. But when the Head of the Government is making this intervention it is but fit and proper that after the Opposition has been heard the intervention is made. In this case the Prime Minister intervenes. The Prime Minister comes here, sends a slip to you and immediately you say to the Member speaking "Wind up" and she speaks.

**THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA):** He had finished his time. What are you talking, Mr. Gupta? The hon. Member had finished his time.

**SHRI BHUPESH GUPTA:** That is all right.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): You cannot say that I asked the Member to wind up.

SHRI BHUPESH GUPTA: Then I don't. If I misconnected the two, you can disconnect them. That is all right. Now I say that after Shri Chitta Basu and some other Members of the Opposition have spoken the Prime Minister can speak. Otherwise it is not good. It is not fair to the debate. If this is so then, Mr. Vice-Chairman, I will lodge a protest and to show that I shall not be present.

*(Interruptions)*

SHRI CHITTA BASU (West Bengal): The Prime Minister...

SHRI A. P. CHATTERJEE (West-Bengal): I support what Mr. Gupta has said because when the Prime Minister intervenes she has to deal with what the Opposition had to say on the subject and not reply only to what the party Members have said.

SHRI BHUPESH GUPTA: She can discuss it with them in their Parliamentary party meetings.

*(Interruptions)*

SHRIMATI LALITHA (RAJAGOPALAN): Mr. Vice-Chairman,....

THE VICE-CHAIRMAN (SHRI M.P. BHARGAVA): Will you all take your seats? I shall explain the position. There is a request for raising a short-duration discussion and certain hon. Members have given their names and I am going strictly according to the names. If hon. Members from the Opposition parties find their names down below in that list I cannot help it.

*(Interruptions)*

SHRI BHUPESH GUPTA: Where is the Prime Minister's name there?

You cannot say that. It is wrong. I raise a point of order and you have to give your ruling.

*(Interruptions)*

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): Order, order. Let us be orderly. We cannot have three Members speaking at the same time. I am prepared to listen to you one by one.

SHRI BHUPESH GUPTA: My position is this. In such matters, in every single debate there should be a fair debate and that presupposes the position taken up in parliamentary democracy, namely that there are two sides, the Government side and the Opposition side.

SHRI AWADHESHWAR PRASAD SINHA (Bihar): Sir, on a point of order.

THE VICE-CHAIRMAN (SHRI M.P. BHARGAVA): Let him explain.

SHRI AWADHESHWAR PRASAD SINHA: I am on a point of order.

THE VICE-CHAIRMAN (SHRI M.P. BHARGAVA): What is your point of order?

SHRI AWADHESHWAR PRASAD SINHA: I have been in this House since December, 1956 and I have seen that Ministers have always the right, particularly the Prime Minister, to intervene in the debate at any stage and so this sort of intervention on the part of my hon. friend is graceless, unbecoming and mars the decorum of the House. I feel that the Prime Minister is not going to reply to any points. She is going to make a policy statement with a view to meeting the situation which is before us. Whether you speak or you go away the policy is there and the Government

is alive to the situation. So my point of order is that such interruptions should not be permitted.

SHRI BHUPESH GUPTA: You have heard this thing; he has been here since 1956. But I have been here....

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): You have been here since 1952.

SHRI BHUPESH GUPTA: Yes, 1952. I am four years older.

SHRI AWADHESHWAR PRASAD SINHA: I was there in the Lok Sabha also since 1950.

SHRI BHUPESH GUPTA: It does not mean anything. Surely one can be wiser in one year but it does not look to be so in some cases. Here that is not the point. Nobody is questioning the Prime Minister's right or any Minister's right to intervene. Nobody is questioning it at all. The issue is not that. The issue is should any Minister and especially the Prime Minister make an intervention in a debate when the Opposition point of view had not at all been expressed. I am not going to speak; you can save that time.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): There is no question of saving time. We are prepared to sit here.

SHRI BHUPESH GUPTA: I think the Prime Minister herself should be interested in hearing what the Opposition people have to say because she can always hear the other point of view.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): Mr. Bhupesh Gupta, I take the other view that the

Opposition Members will have, after the Prime Minister has spoken, the chance to say what they feel like on that statement also.

SHRI BHUPESH GUPTA: If it is a statement then the statement should be subject to discussion. Mr. Vice-Chairman, you can give any argument you like. Mr. Sinha there gave an argument. There need not be unnecessary quarrel. I know that you will have your way. I know that I will not speak. I know all that.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): Mr. Bhupesh Gupta, I am always open to reason.

SHRI BHUPESH GUPTA: What reason? Here is an important matter being discussed. It is not a party issue. Is it not proper for the Government, when the Head of the Government comes and speaks, to hear the point of view of the other parties? What is unreasonable in it?

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): If your names were at the top, the same thing would have happened.

SHRI BHUPESH GUPTA: There again you are wrong. Sometimes even when their names are there you do not do this. Today you are doing it. All right, you proceed. If, for example, 15 Congress names were on the top then usually what is being done is you call two or three Congress Members, then Opposition and then again you go back to the Congress. It has been alternating in that manner. Today you are following a very interesting procedure. We did not want to disturb you. You called according to the list. It is all right; I am not objecting to it but it is not good. The debate is not there; it becomes one-sided. I am not saying that there are party differences on this question.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): This is not a party question at all, Mr. Bhupesh Gupta. It is a national question where every Member is expressing his own view.

SHRI BHUPESH GUPTA: But the nation includes also the Swatantra Party, the Jana Sangh, the Communist Party and other parties besides the Congress Party.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): Mr. Bhupesh Gupta, even the list here does not have any name from the Swatantra Party, any name from the PSP, any name from the SSP, any name from the D.M.K. So, how is it a party question? You know this is only a short duration discussion.

SHRI BHUPESH GUPTA: You are confusing with the notice of the discussion.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): I am not confusing anything. I am absolutely clear.

SHRI BHUPESH GUPTA: You can call anybody, but....

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): Mr. Bhupesh Gupta, don't be unreasonable. That is what I can say. She is not....

SHRI BHUPESH GUPTA: What is unreasonable in it?

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): She is not replying; she is just explaining the Government's standpoint in the matter. The reply will be made by Mr. Sen.

SHRI BHUPESH GUPTA: How do you say this is a list? This is only

a notice for raising a short duration discussion. If a hundred people give notice it does not mean that all the hundred will have to be called.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): It depends on the time.

SHRI BHUPESH GUPTA: Yes; it depends on the time. Therefore, you have to accept that this list does not pre-determine the order in which you call Members.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): But today I find that I can accommodate everybody in the time allotted.

SHRI BHUPESH GUPTA: Do it then.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): That is why I followed this procedure.

SHRI BHUPESH GUPTA: But the thing is, initially you were right but the moment the Prime Minister comes, Mr. Vice-Chairman, with all respect, something has gone wrong somewhere.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): Nothing has gone wrong anywhere. The House will agree with me that the Prime Minister has the right to intervene in any debate at any stage.

SOME HON. MEMBERS: Yes.

SHRI BHUPESH GUPTA: I say no; the House does not agree with that. Where is the rule? Under which rule?

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): There is no rule to that effect.

SHRI BHUPESH GUPTA: I would ask the opinion of the House

whether we should waive all the rules and conventions to make it possible for the Prime Minister to speak now. I know the House agrees with me that in deference to the desire of the Opposition the Prime Minister should postpone her speech till some Opposition voice has been heard about this matter. Let the House say that it does not agree.

*(Interruptions)*

Mr. Vice-Chairman, you cannot tailor a motion to suit a proposition and exclude the other motion; you cannot condition a proposition to disengage other propositions. Therefore if your motion is there, let the motion be discussed. Let the discussion be postponed. You move a motion; let Mr. Dharia move a motion and we shall discuss it.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): What motion?

SHRI BHUPESH GUPTA: The motion is, that the House resolves that the Prime Minister be heard.

*(Interruptions)*

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): It is never done.

THE MINISTER OF STATE IN THE MINISTRY OF EDUCATION (SHRI BHAGWAT JHA AZAD): It is absurd.

SHRI BHUPESH GUPTA: I know you have authority. I am not questioning your authority at all.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): I am not exercising any authority, I am only following a well-established convention.

SHRI BHUPESH GUPTA: When was that convention established in this House? Mr. Vice-Chairman, tell me a precedent when in a debate the

Prime Minister, or for that matter any Minister, had intervened without one single Member having spoken from the Opposition side. If you give me that precedent I shall apologise to you a hundred times and withdraw from the House. I shall not come in the way. Mr. Vice-Chairman, I have not lost my memory. I remember everything. If you show in a debate of this kind or in any debate, any Member of the Government has spoken without any Member of the Opposition being heard I shall tomorrow tender apologies a hundred times and shall give a pledge that on such points I shall never rise at all in this House. Are you ready for it?

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): What can we do now? We will check up the record and if what you say is correct we will follow it in future.

SHRI BHUPESH GUPTA: Therefore your memory does not help; neither the record will and you cannot claim it with authority and conviction. What you cannot claim with authority and conviction, how do you expect us to accept? As a Member of the House I claim what I have said is the correct position from my memory, from my knowledge, from my experience and from what I understand to be parliamentary convention and procedures followed in such matters. You accept it, but if you counter it by any citation of rules or other things or by giving certain examples, I bow to you. Otherwise you cannot say you just feel like it and it should be done. What I have told you on the basis of knowledge must give way to your feeling much as I would like to respect it. Therefore I say it is better; at least let Mr. Chitta Basu speak. I am not dying to speak. You have already exhausted me; I would have spoken even less. Therefore let Mr. Chitta

[Shri Bhupesh Gupta:]

Basu and others speak from here. After that the Prime Minister can speak. She can wait. Can't you wait for fifteen minutes?

SHRI AWADHESHWAR PRASAD SINHA: For the sake of two minutes you have taken twenty minutes. It is an infliction which we cannot suffer.

SHRI BHUPESH GUPTA: Of that you have taken five minutes. You are a smaller pilferer.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): Mr. Bhupesh Gupta, now let the Prime Minister continue.

SHRI BHUPESH GUPTA: Let Mr. Chitta Basu speak.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): Let us hear the Prime Minister and then we will hear all of you.

SHRI BHUPESH GUPTA: You seem to be fond of hearing the Prime Minister, we are not. Mr. Vice Chairman, if that is so, I do not wish to be a party to an unprecedented thing.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): Mr. Bhupesh Gupta, since the Prime Minister has already taken the floor I would allow her to continue her speech. If you had made the request before—she began the speech I would have considered your point.

SHRI BHUPESH GUPTA: This is too much. You are injuring us now. I did not know why the Prime Minister had come. It is not as if she must not always come here without a speech in her pocket. Even otherwise she can come to this House. She is quite welcome. She came here. Even then I wanted to say it.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): Now, you cannot

stop anybody in the middle of a speech.

SHRI BHUPESH GUPTA: She has not started.

THE VICE-CHAIRMAN: SHRI M. P. BHARGAVA: She has started.

SHRI BHUPESH GUPTA: She has not started. She could make a foreign policy statement touching Rhodesia.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): I leave it to the Prime Minister.

SHRI BHUPESH GUPTA: I strongly protest against such a thing and if that is the way to treat us, we will not speak.

*(At this stage some hon. Members left the Chamber.)*

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA): Prime Minister *(Interruptions)* Order, order.

SHRIMATI INDIRA GANDHI: Mr Vice-Chairman, as you rightly said a little while ago, the issue before us particularly calls for a co-operative approach. This is not a Party matter, nor is it a debate which requires an answer. Therefore, I do not think it makes any difference as to who speaks before or after. As you yourself have mentioned, the Education Minister is going to reply to the debate. Some hon. Members requested that I might come and say just a few words and that is why I came as soon as I could.

This is a problem, as I had begun to say, which is of deep concern to the Government and to all of us, not only because of the hardship which our young engineers are facing, but because it is a waste of national talent



and national energy, which we need to use at a very difficult time of our economic development. We are fully conscious of this. Now, the situation is an unfortunate one, even a tragic one. The President, in his Address, has also expressed his deep concern and disquiet at this development. What has happened is that after planning for technical man-power based on certain rates of economic growth, while the targets of expansion in the field of technical education have been reached, the capacity of the economy to absorb them has been seriously reduced, because of the special circumstances of the last few years. That is why we have had this imbalance, thus creating this special and difficult problem. I have been in personal touch through some of the institutions which I have visited, through a number of students who come to meet me from different parts of the country. Different people, including the Education Minister, have made a number of suggestions as to how this problem should be dealt with. I forwarded them to the Planning Commission, because I thought there should be one authority, who could go into the whole matter, co-ordinate the suggestions and find out what was possible to do immediately, in the light of the resources available. The Planning Commission has very kindly gone into this matter. I had suggested serious discussions with the various Ministries of the Government and on that basis, just very recently—in fact, it only this morning—I have seen a draft of certain suggestions which they have made. Now, these suggestions and their monetary and fiscal implications have to be studied by the various Ministries, and we have asked them to deal with the matter most urgently. We hope that a decision can soon be taken on this. What I wanted to say was that we are grateful

to all the Members, who have raised this discussion, and we shall certainly pay the most serious consideration to their opinions and to the constructive suggestions which they will make in the course of the discussion. We shall certainly take the House into confidence regarding the measures which we decide to adopt.

The President stressed in his Address that there could be no easy, short-term solutions. The problem can be solved only in the measure that our economy revives and the rate of industrial growth is accelerated. We need to critically re-study our man-power requirements and keep in touch with the State Governments and university authorities to determine what changes are necessary in our present policy in order to achieve higher quality as well as a more rational equation between the output of engineering personnel and the likely demand for them. I agree with the hon. Member, who spoke just now, that we must not view this problem from the point of view of the needs of the near future only and we must not do anything which would jeopardise our future needs. Whatever we do today is not going to have any immediate effect, except in those short-term steps which we can take with regard to those young engineers who are unemployed at the present moment. In order to deal with this aspect, we are having a study of the recession in industrial activity and certain measures—my colleague, the Deputy Prime Minister, has spoken about them—have been initiated to stimulate production and investment. Certain budgetary provisions have been made with regard to irrigation and so on, in which our people could be employed. We are also in the process of locating those aspects of economic activity where the intensive use of engineering

[Shr'mati Indira Gandhi]  
 skills would be conducive to better returns from existing investments as well as those contemplated in the Fourth Plan. Now in the past, the lack of personnel was a constraint on the adequate preparatory investigation of plan schemes and it also reduced the number of alternatives before us. To that extent that we are now able to remedy these defects and improve the quality of technical investigations and enlarge the area of choice, the present surplus might well prove to be an asset to the nation. It is not an easy job. We have to go through a difficult phase and the young people concerned will also have to put up with a certain amount of hardship. But I can assure the House that in the preparatory work for the Fourth Plan, as well as in the long-term measures and schemes which are finally included in the Plan itself, every effort will be made to mitigate this hardship and solve the problem.

One other point made was with regard to foreign collaboration. I agree with the hon. Member that there have been many such cases where one does not see the necessity for going into collaboration. In spite of our best efforts, we have been a little lax in this matter. I should like to state here that I myself am deeply concerned over this matter and I have taken it up with our Ministries time and again, as to how we can tighten up the whole procedure, so that we do not enter into such turnkey contracts or other collaboration arrangements in matters which we can do ourselves. Of course, this again, means a certain amount of hardship, because sometimes it is easier to take on such turnkey contracts or to have collaboration and produce something quicker and perhaps even cheaper.

Doing it our own way may mean that it will take more time and that

it will cost more money. Now, I personally think that if this is put squarely to the nation, they will be prepared for that extra effort. I do not want to go into the further details with regard to this.

I would like to assure hon. Members that this is something which we have very much at heart and which we are looking into. Unfortunately, many of these contracts and so on were entered into earlier and it is not possible to put an end to them immediately. But we are doing our best to see that in future no such step is taken. Not only should our effort be such but the decision and the implementation should be that Indian know-how and our technology are used to the fullest extent. If it is not available, sometimes we should even be prepared to change the scheme, if necessary, to fit in with the assets available and put up with that extra hardship.

I am grateful to you, Sir, for giving me this time and I am sorry that the hon. Member, Shri Bhupesh Gupta, took up this attitude. I want to assure the House that in no way did I want to show disrespect to the views of the Members of the Opposition. We listen to them with equal interest and equal concern, and very often they make constructive suggestions. I am very sorry that he took up this attitude. I am not here really to speak about Government policy as such but I was asked to intervene, and I have intervened on previous occasions also when I suddenly received a note; sometimes hon. Members say they would like me to say a few words as on the occasion when there was a debate on a private motion on the Scheduled Castes and Scheduled Tribes. There I had no intention of speaking but I got a request from several Members and I found that that was the only time I could come to the House and the

Chairman very kindly allowed me to come immediately and say a few words. So it is merely to express Government's concern on the matter.

I am very grateful to you, Sir, for the time given.

**SHRI AWADHESHWAR PRASAD SINHA:** I read in the papers that the Government of India is going to employ about 10,000 to 12,000 engineers in the near future. Is this true?

**THE MINISTER OF EDUCATION (DR. TRIGUNA SEN):** I will take care of that.

**THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA):** Mr. T. N. Singh.

**SHRI T. N. SINGH (Uttar Pradesh):** Mr. Vice-Chairman, I remember as early as 1961-62 when I was a member of the Planning Commission, we were discussing the question of technical manpower requirements and a programme of action for that purpose. Even then, we had noticed that there was a surplus of overseers and junior grade technicians and there was a pressure from some of us that the programme of training of such personnel should be reduced. But somehow or other the Government, the technical and economic Ministries concerned felt that this was only a temporary phase and that we had got to continue the present programme of education and training of technical personnel. Then two years later it was noticed that even among the graduate engineers also there was some surplus. Then when we again examined the economic Ministries' officials, they told us that this was only an apparent surplus of graduate engineers because most of these engineers were waiting for higher jobs on higher salaries and they were not accepting employment in lower jobs on lower salaries which they were

likely to get, and in course of time after one or two years they would reconcile themselves to a lower salary and this apparent unemployment would disappear. That was the position then. Later, slowly signs of unemployment appeared also among geologists and some other technicians.

We have been trying in the past so far as scientists are concerned to have what is called a scientists' pool. I personally am very much in disagreement with this plan, because to have a pool, to give them a salary and to give them no work, is not proper. It is most demoralising to any respectable person, whether he be an engineer or any other person. I personally expressed my views very frankly on this subject and said that creation of any number of pools and keeping our technical staff, the flower of our people, on doles, on a kind of doles, will be highly demoralising and that this should not be encouraged. As temporary palliatives etc. you can do so, but to make it a permanent feature and to have on the register people for whom we have no work and yet pay them, is not desirable.

I have always held the view that we should not have more surplus technical men than we need. It was known even as we were nearing the end of the Third Plan that we would be achieving only 60 to 70 per cent of our plan targets in industry and allied sectors. That was enough indication that all these technicians who were coming out of the institutions according to the original programmes unaffected by the adverse economic position would become surplus. It was known. I say it was known to everybody, everyone of us, that these people were going to become surplus. If you have got one sector progressing slowly and if you go about as if nothing

[Shri T. N. Singh]  
is happening and do not readjust yourself from time to time such kinds of imbalances and strains will arise. What has happened is that while our economy has not made progress as we anticipated, the Prime Minister has frankly stated that, the education and training programmes of engineers has gone on as before. Not only that, our concern has been to even accelerate the programme. Let us remember that in the ordinary educational system in arts or ordinary science courses there is comparatively a large number of casualties; I mean that students appear in larger numbers and many of them fail. But in the technical line, in the engineering line, the proportion of such casualties is very low. So we can know to a very great precision the number of engineers that will naturally be in the field for employment year after year. There is no question of uncertainty here.

This is what has been happening and it is no use now our saying that we did not know about it. I say we knew about it, and I hold the Education Ministry solely responsible for it. They knew of it five years ago, and yet every year they wanted to expand engineering institutions, engineering colleges saying they had planned and their plan must not be pruned. The ambition of each Ministry to have a bigger and bigger empire of its own is responsible for this, and I will say it very frankly and I think it is better to profit by experience. There is no question of any criticism, anyone can commit mistakes, I personally have committed a number of mistakes in my life. We are successors of Gandhiji who never hesitated to accept mistakes, and I do not think there is any harm in accepting our mistakes.

Having said all this, I must say a few words—I hope because of my

age and experience our young engineers will forgive me—and it is this. Every engineer who came out as a graduate thought he must get a salary consistent with his new position. If he did not get a better salary, he even preferred to wait for a long time. If he had the good fortune of having been trained abroad and if he got something in four figures there, he came here and said, "Our own Government does not value us. Look at America. They are paying so high salaries to us. So we cannot accept low salaries in India". But they all forgot that ours is a poor country, that the average *per capita* income is Rs. 350 per year, and actually the bulk of the people are living on a *per capita* income of lower than Rs. 200. That is the position. Yet a few of the people who are fortunately placed for some reason or other want to be 50 times or 60 times more highly paid than the lowest. I have heard a lot of criticism and people have said that nobody should get more than 30 times the lowest salary in India. I say that is a good principle if we follow it. I would even go lower to 20 times, why 30 times? But that should apply equally to everyone. The disparities in incomes, whether they are big industrialists or big technicians, must be reduced.

Ours is a poor country. And I say, that the ultimate solution of this problem also lies with our engineering personnel and other fortunate persons who have today become a kind of aristocracy among the employed personnel in the country. I think I may urge upon them in all humility: they will have to pipe down a little, mere in consonance with the general wage level of the country. They will have to and that is one way to solve the problem.

I may here tell you something from my own experience. I have had occasion

to visit a big engineering concern I went there. There were young engineers, very bright people, very good people, highly intelligent people. I liked them. I talked to them for two days, talking to them one hour each day. Casually, I asked them a question. I asked them, "I want to put a question to you. I find all of you very cleanly dressed, there is not even a black spot on your white coats and pants. Don't you touch the machines?" They said, "Our job is to supervise. We need not touch the machine." Then I said, "Should you not change your attitude?" To this their reply was that if they did that, their prestige would go down among the workers. That is not a correct mentality. I am saying this about our engineers in all humility because I treat them as my younger brothers, as my sons. They are the flowers of India's life. And I want to tell them just as I would tell my own son. I told them that they should work on the machines because I know something of planning and I knew what was likely to happen. I told them, "You are on the velvet today. But tomorrow things will be different. So, please adjust yourselves to what may happen in the future." But nobody agreed to that.

I would therefore say that now that there is a crisis, problem has arisen, we have to tackle it with sympathy, with vision, with generosity and also with a little firmness. May I be permitted, Mr. Vice-Chairman, to make a few suggestions. Mr. Dharia made certain valuable suggestions. I do not contest them though what I have said, has countered some of those suggestions regarding the pool, etc. I would suggest that this is the opportunity to do something about the very system of education in engineering. I can say with due deference to Dr.

Sen, our Education Minister, who is himself an engineer or who has run an engineering college, that there is need for raising the standards and pattern of education in engineering colleges. And here is the opportunity to do it. Have we not been creating too many civil engineers? Is it not a fact that there is more of generalised education? And the standards need to be raised much more than what they are today. This is the opportunity. In our fear that there should not be a lower number of casualties in engineering colleges, we have allowed things to drift in a manner which we should never have allowed.

The second thing that I will tell you is this, and that is again from my experience. I had my little problem. A friend on the opposition benches was rather unkind to me when about 17 or 18 engineers at a project had to lose their jobs. They were doing some construction work. There was a hue and cry. They were mostly in the four figure income-group. There was so much of sympathy for them. They came to me. I had offered them earlier also. I said, "We were going to have the Bokaro steel construction. What about forming a co-operative of engineers and taking up construction contracts. All of you 18 engineers will thus get the job tomorrow." Will the House believe me when I say what the answer was? The answer was that they did not believe in such things. They want salaried jobs. They did not take kindly to the suggestion of co-operatives and industrial opportunities for them. Their minds are not oriented to that kind of work. Engineers can do it; I am sure they will do it. But their minds today are not oriented towards such useful proposals. Very useful suggestions are made by us, by officials, by Government but simply they do not work.

[Shri T. N. Singh]

So, there is need for a reorientation of the education of our engineers to develop the necessary aptitude, the mind, the inclination, the tendency to make them to take to these co-operatives. You give them the finance. But they should have the capacity to take risk in life, in enterprises. Whether they do it privately on their own or as a co-operative. That attitude of mind has to be created. Otherwise, you will continue to face such problems.

The third point is this I do not like the suggestion that has been made that engineers should be recruited to non-technical jobs, in the administrative services. Do not waste their time and talent. I have seen some people like that in civil posts. I would not advise acceptance of such a proposal. The fourth suggestion is as follows. As I said before, I want that the engineers should be asked actually to operate the machines. Let them not be mere supervisors. And you will find that they will find themselves employed once they have done that kind of work and this problem will not be there for they can and will become easily self-employed.

Lastly, I will only say that it is the self-employed people who are the backbone of the country. The self-employed people are our peasants, farmers; the self-employed person is the man in the street who hawks and does anything; they are the artisans and craftsmen who do something to earn their living and do not beg for jobs. I wish to God and I pray that our engineers who are the best amongst us, the younger generation of engineers will become the back-bone of our country by being self-employed. Let them develop this attitude. Let us do something through education, training or a programme of action. Let us provide

opportunities for them for self-employment rather than for jobs on salary and dependence on big business. If we do that, we would have ultimately solved their problem and many other problems of this country.

DR. TRIGUNA SEN : I have heard with rapt attention the concern of hon. Members of this House regarding the present situation of unemployment of engineers. The Prime Minister has expressed her concern also on behalf of the Government about the present situation. My concern is still more because many of the students who have come out now were admitted by me in two different universities three or four or five years ago. Besides, Sir, at the beginning of the Fourth Plan, the Government of India invested quite a large amount of money to turn out the requisite number of engineering personnel and established institutions at great cost. Though it has been agreed by many that trained personnel add to the wealth of a nation which is closely related to the rate of growth of the economy, it is a paradox that although India is a developing country, still these trained personnel are not being

7 p.m. gainfully employed. Sir, the reasons for this unhappy situation during the last one or two years have been touched upon by our Prime Minister. I can only say that—and it is known to the Members—in the last two or three years there has been a big recession in industry, and we all know that the Fourth Five Year Plan, has, more or less, been slowed down, not implemented. Strictly there is further expansion of development of projects like irrigation or power in a big way. In fact, wherever the projects were started earlier they have been completed. The personnel employed on them are also being retrenched. These are the various factors responsible for the present situation.

Sir, lots of suggestions have been given by hon'ble Members. I will only touch upon a few and refer to the thinking of the Planning Commission in this regard to meet this situation both on the short term and the long term basis.

A suggestion has been made that we should not reduce the intake of students because after five years when we expect that there will be growth in the country's economy, we might then again fumble for want of technical personnel. I want, to assure hon'ble Members that our approach to this question of the reduction of intake is going to be very selective. There are quite a number of institutions in India where there is no proper equipment. You would not be surprised if I tell you that the Engineering students who were admitted in a Polytechnic had to go without any workshop experience because the workshop had not been ready. There are institutions where about 20 to 25 per cent. of the teachers are not in position. So we do not like that those institutions which are not well-equipped and well-staffed should take new students and turn out Engineers who are engineers just in name and cannot be called qualified Engineers. So our approach to reduce the intake will be very, very selective.

Again, if we think that for two or three years this recession is going to continue, then there will be a backlog of unemployed Engineers. With the development of industries in the country we can take care of this backlog and there will not be any possible unemployment among our trained personnel.

Sir, Mr. Purkayastha has referred to the training imparted by the Institution of Engineers. I myself

was the President of this Institution for two years. They do not produce exactly Graduates as has been mentioned by Mr. Purkayastha. There are a large number of students who are working in different factories. They take part-time courses, evening courses and qualify themselves to improve their positions. I think, as suggested by Mr. Purkayastha, this should not be stopped because in our country there are many poor students who cannot go in for regular courses or studies in the Engineering colleges. Just after passing their Higher Secondary examination they go to these shops, work there as craftsman and try to improve their conditions. The Institution of Engineers takes care of these students, gives them training theoretically so that in course of time they can pass those examinations. There is a hope for the poor people too, who did not have the good fortune to study the regular courses to go through these various part-time and other courses, to the top. They do not add to the number of unemployed Engineers because they are already employed in the industry. The Institution takes only those boys who are in the industries for several years and are in the employ of the industries. They come to study only to improve their qualifications, their position and their knowledge.

Similarly, the British Institute of Engineers I enquired of it through their correspondence courses train the working people in the different industries. You know, Sir, the Government had a proposal to start these correspondence courses in a big way. We could not do so. I am told that this Institution is doing that. But I must admit that I have not gone into the details of their working. I will find it out. If it is to the disadvantage of our country, surely it should be stopped.

[Dr. Trigun S n]

There is a suggestion of making a pool of unemployed Engineers. I can tell this House with pride that I get lots of letters from unemployed Engineers who have written to me to say that they are proud that they belong to a dignified profession. Though they are not in a position to earn some money they do not like to live on charity. They would prefer any job for which they are paid. Generally speaking, the students who are coming out are opposed to this type of system of a pool or a dole. And I can tell you I respect their sentiment.

Sir, hon'ble Mr. Singh has raised certain questions saying that the Ministry of Education did not like to curtail its empire and went on expanding. I do not think the Ministry had ever that idea of expanding its empire. The Ministry was always guided by the Scientific Manpower Committee of the Planning Commission who worked out the number of personnel that they required either in the Engineering or the Diploma courses. Accordingly, they made provision for it.

Sir, I remember, during the Chinese aggression in 1962 a proposal came that they want immediately 30,000 Engineers, within two years, if possible and the Ministry was asked to start condensed courses. On the other side, I was a Member of the All-India Council for Technical Education. I opposed it. But I opposed it for another reason, namely, that in the Defence Ministry itself about 30 per cent. of the Engineers were under-employed. They could have released those posts and this gap could have been met. So the Ministry of Education was always guided by the Scientific Manpower Committee of the Planning Commission or of the Home Ministry to make arrangements for the training of engineers. I do not think

my predecessors had ever thought of . . .

SHRI T. N. SINGH : Was not the Ministry fully associated with their plans ?

DR. TRIGUNA SEN : Surely, it was.

SHRI T. N. SINGH : Therefore, you cannot absolve the Ministry of its responsibility.

DR. TRIGUNA SEN : In the beginning of the Fourth Plan, when we had a total stock of 250,000 Engineers and Diploma holders on the basis of the manpower projections given by the Planning Commission it was estimated that those stocks would grow at the same rate as the economic growth of the industrial sector. That is about 11 per cent each year. This was the indication and on this basis the Ministry estimated the demand of engineers at about 50,000 and of technicians at 1,10,000 in 1970-71. So the institutions were started, equipments were purchased and arrangements were made. I do not say that the Ministry is not to be blamed for it. But I do not think the Ministry had ever thought that they would lose their empire if the institutions were reduced in number. Besides, Sir, it is because I am Education Minister that I am defending my Ministry. I remember again that when I was on the other side, just before the election, every State wanted to have more engineering colleges and more polytechnics and the powerful members wanted them particularly in their constituencies. There was always a pressure of demands and perhaps the Centre was weak to resist or, and I find now that lots of institutions have come up in the country where there is no semblance of industry even. So it is agreed that political pressure was partly responsible for this expansion. But the whole



blame should not be laid at the door of the Ministry of Education.

I agree with Mr. Singh—and we are thinking about it for the last few days, every day about a couple of hours—that this is an opportune moment when we can reorient our system of education, the attitude of our students and the attitude of our faculty members. We should not prepare a student just to get a job as soon as he comes out; he must learn to stand on his own feet, he must have confidence in himself and he must be taught to do something so that as soon as he comes out, he can start on his own. And I can assure my most esteemed friend, Mr. Singh that I am at it for the last few days. We are seriously considering this and I am sure that we will be able to do something in this regard and change the entire attitude of the student and the staff.

Now, Sir, coming to the short-term and the long-term policies, as I have said on many occasions, I referred the matter to the Planning Commission. The Planning Commission discussed it with the various Ministries and they made several suggestions which are before the Government for a decision. As I said, the very first suggestion is that the intake should be reduced, in a very, very selective way particularly in institutions where there are no equipments or teachers or there is lack of facilities to give better education. Then there is the question of the recruitment procedure both in public and private sector undertakings which takes a lot of time, one year or two years. We have suggested that it should be streamlined. Thirdly, the Central and the State Governments should expedite the recruitment of engineers to unfilled vacancies on a priority basis. Fourthly, since a number of posts are vacant in

the Army and Military Engineering Service under the compulsory liabilities scheme against the States' quota, it would be advisable to step up direct recruitment of engineers for Defence establishments. Fifthly, we suggested to the State Governments that the practice of making thorough investigations of irrigation, power, and other projects by qualified personnel should be re-established, and detailed reports and estimates drawn up for projects to be undertaken during the Fourth and Fifth Five-Year Plans. Similarly surveys such as hydrological surveys, surveys of river basins, etc., needed for future planned development should be taken up on a priority basis. Programmes should be undertaken for accelerating utilisation of irrigation works already completed. Practical training of engineering personnel by the employing agencies for a specific period depending upon the nature of the job should also be insisted upon. Practical training schemes of the Ministry should be expanded for the purpose. Qualified engineering personnel should be encouraged to take up small-scale industrial projects through the grant of loans by the State Governments. A special scheme for the purpose may be drafted by the concerned organisations. Sir, in this regard, I cannot resist the temptation to mention that one of the Members, of this House, Shri Akbar Ali Khan has already started in Hyderabad in collaboration with the Osmania Graduates' Association Exhibition Society, Economic Committee of Hyderabad, to give training to engineers, to quite a number of them, in the Small-scale Industries Service Institute. He told me this morning that he is very happy that they could find opportunities for quite a good number of engineers. I do not understand why we cannot do a similar thing in most of the States or

[Dr. Triguna Sen]

places where there are industrial complexes.

Then, Sir, the development of consultancy firms should be encouraged, and for this financial assistance from the public sector as well as other financial institutions should be available. They must engage qualified engineers. And the expenditure on research and development should be stepped up. We have seen, at least we are sure that we will be able to find some places for practical training in different industries throughout the country. And to add to that, we learn that a large number of thermal power plants are functioning without well-trained personnel, and about 2,500 engineering graduates and diploma holders can immediately be absorbed for training in that field. If we take up, and we have taken up, these projects, I think on the short-term and long-term basis

we will be able to solve this problem.

I take note of an excellent suggestion given by my hon. friend, Shri Dharia, and I agree with him that to implement these projects, it is absolutely necessary that there should be a body, a co-ordinating body of all the user Ministries, the public sector, the private sector, the Railways, roads and transport, irrigation and so on, to see that these schemes are implemented without any delay. I will, Sir, place this suggestion before our Prime Minister for consideration. Thank you.

THE VICE-CHAIRMAN (SHRI M. P. BHARGAVA) : The discussion is over. The House stands adjourned till 11 A.M. tomorrow.

The House then adjourned at eighteen minutes past seven of the clock till eleven of the clock on Saturday, the 23rd March, 1968.