

2. Shrinivas Cotton Mill.
3. W.G. Gorge.
4. Amar Dye Chem.
5. Solid Containers.
6. Bombay Malleable.
7. Bombay Pottaners.
8. Digvijay Cement Mills.

Number of other employers have applied for closure or retrenchment of workers to the Government. Though the State Government has not been given permission for closure, but the employers are not paying salaries, not paying electric bills, etc. and many of these factories are closed for more than two years. About 30,000 workers are out of jobs. Banks are going to High Courts for recovery and many of these units are going in liquidation, thus depriving the workers of their gratuity and other benefits. The employers who have closed the units, should not be given any permission to open similar units anywhere in the country. They should not be given further loans from Banks for any other units in the country. Money should be recovered from the employers' personal property or from the assets of their units where the employer/employers of closed unit is/or directors.

(VIII) Need to conduct survey of forts of historical architectural value in Rajasthan and arrange for their proper maintenance

SHRI JUJHAR SINGH (Jhalawar) :
Sir, apart from their historical and architectural value, the Forts and the Palaces of Rajasthan have been attracting lot of foreign and domestic tourists to the State and have been helping in earning foreign exchange and developing the economy of the State in a variety of ways.

It has, however, been observed that the State Government and the Government of India have not been paying proper attention for the protection and proper utilisation of most of such forts which have been transferred to the State and which

are of great architectural importance. Even Fort Walls of Towns like Kota, Bundi, Bharatpur, Jaisalmer and such other places which are located at the District Headquarters have been allowed to be trespassed over and spoiled at the hands of private individuals. The Fort of Gagron with its history of over 1000 years has similarly been neglected although it is located at a 5 kilometre distance from Jhalawar town which is a district headquarter. This Fort could be developed as a big tourist attraction in future. I, therefore, wish to draw the attention of the hon. Minister of Culture to this problem with a request to get a survey conducted for Forts of historical and architectural value in Rajasthan and arrange for their proper maintenance in future.

**DEMANDS FOR GRANTS
(GENERAL) 1986-87—Contd.**

[English]

- (i) Ministry of Science and Technology—Contd.
- (ii) Department of Atomic Energy—Contd.
- (iii) Department of Electronics—Contd.
- (iv) Department of Ocean Development—Contd.
- (v) Department of Space—Contd.]

[English]

MR. DEPUTY-SPEAKER : We shall now take up further discussion and voting on items 5, 6, 7, 8 and 9 together.

Mr. Ram Singh Yadav may continue his speech.

SHRI RAM SINGH YADAV (Alwar) :
Honourable Deputy-Speaker, Sir, yesterday I was reminding the House of the contribution of Pandit Jawaharlal Nehru

[Shri Ram Singh Yadav]

in inducting the scientific culture and scientific temper in the nation in the economic, social and development fields and the rebuilding of the country, and Pandit Jawaharlal Nehru was of the firm opinion that the country cannot progress, cannot be emancipated from hunger and poverty unless the use of science and the help of science is made available in the working of the national life of our country.

12.27 hrs.

[SHRI VAKKOM PURUSHOTHAMAN
in the Chair].

Here, I may quote Pandit Jawaharlal Nehru from page 1 of the book *India and the Atom* :

"It is Science alone that can solve the problems of hunger and poverty... superstition and deadening custom inherited by starving people... Who indeed could afford to ignore Science today? The future belongs to Science and to those who make friends with Science."

It is these words which were expressed by Pandit Jawaharlal Nehru and these words, with all their intentions, are applicable today and shall be applicable tomorrow and for the times to come. Not only this, he was quite aware of the fact that science and scientific inventions—they can and they have proved to be destructive also as in the case of Hiroshima and Nagasaki. Even then, there is a human mind and if the human mind works for the welfare of the mankind, if it works for the development of the human society and if the human mind can work for the betterment of the world human society for their existence, then atomic energy can be used for peaceful purposes and Pandit Jawaharlal Nehru while stressing this, has said :

"If we do not set about it now, taking advantage of the processes that go towards the making of atomic energy

and join in the hands of scholars and researchers who are trying to develop it, we will be left behind. State should give every facility for this development."

And that is why India adopted the scientific culture, the scientific institutions and the scientific development in all its economic, social and development aspects of national life. It is not only this. Mrs. Indira Gandhi also stressed upon the adaptability of and investment on the scientific invention, scientific innovations and scientific development. That was the reason why in my State in Pokhran on 18th May, 1974, there was an underground explosion. That explosion categorised our country as among the five countries of the world which have got such experience of the explosion.

Our present Prime Minister, Shri Rajiv Gandhi while inaugurating the Kalpakkam atomic power project in Tamil Nadu, recited a couplet of Vedas and he gave the dimensions of the scientific inventions and scientific development, as it has been said :

[*Yasya Chhaya Amrtam, Yasya
Mrityu*]

It means that the blessings of the god can be welfare for the society and if it goes otherwise, the society cannot prosper. Similar is the case with science. The blessing of the science can develop a country and if that science and scientific technology is used for the destruction of the human kind, that can also prove to be disadvantageous to the human society. Therefore, even today the country needs the scientific temper, the scientific culture and the scientific involvement. For that, today, we have to keep pace with the rest of the world in regard to science and technology. While we are living in the age of Robot, we have to see as to how we can keep pace with the development of science and technological aspects of the developed countries of the world.

Here, my friend from the other side was arguing yesterday, that India is depending upon the purchase of foreign technology. He also criticised about the liberalisation of the import of technology in the industrial and other engineering fields. Here, I may support the policy of the Government and that is only the appropriate policy which can develop the nation industrially, economically and also in the field of agriculture also. It is because, if the technology which is required for the development of the country is to be purchased, it should be purchased. Therefore, the policy of the Government is according to the need of the society and of the nation. It is not only this. Small countries like South Korea are paying billions of dollars for the purchase of new technology. In the year, 1985, South Korea has paid 1.14 billion dollars to the different developed countries—US, Japan, France and West Germany—for the purchase of new technology. Today therefore India cannot keep itself in isolation.

As regards the development of new technology, there is a need as our Prime Minister has given a call to our scientists and to our skilled technicians that whatever the technology that is imported, there is a need that they should innovate, they should adopt and they should make their best efforts to develop it by their own process, and there is need that technology even if it is imported, should be the technology which can best suit the needs of the country and the local conditions of the nation. Technological development is being brought about in the country through different institutions, the educational institutions, the academic institutions and the technical training institutions.

I suggest to the hon. Minister that there is a need at the national level for inter-action between different industries, the R&D institutions and the Universities so that the new technology can be harnessed for the development of the nation and spread to the common man, to the villages and to the agricultural field.

Another requirement of the nation is that there should not be a communication gap between the scientists and technicians and the common man that is, the consumer or the producer. It is necessary that scientific and technological training institutes should be set up in every State so that the local needs of that particular State can be met. In the case of my State, Rajasthan, it is full of minerals. Therefore, there should be an Institute which can train the people technologically in that State to cater to the needs of those local conditions and similar should be the consideration for other States also.

I also suggest to the hon. Minister that at every Gram Panchayat level, there should be an Institute of ITI and at the block-level, institutions like the poly-technic should be set up so that the people of the villages and the people of the countryside may be benefited by the new technological advancement, and by the new scientific advancement and the people can be benefited in their ordinary way of life.

Today, the knowledge and the research of our scientists and our skilled technicians, is limited to the urban life and to laboratories. There should be an effort at the instance of the institutions and of the Government that the research results should reach the field of agriculturists and the small village so that the cottage industry and the village industries can be benefited.

I also suggest to the hon. Minister that all these technical developments need re-consideration at every stage and at the international level also. As he has suggested in his report, there should be inter-action between developed and developing countries and amongst the developing countries also.

With these words, I support the demands.

PROF. P.J. KURIEN (Idukki) : Sir, I rise to support the Demands for Grants of the Ministry of Science and Technology.

[Prof. P.J. Kurien]

After independence, our country has made tremendous strides in the field of science and technology and we are purising the Scientific Policy Resolution of 1958 and today, based on that policy, and thanks to the commitment and leadership of Pandit Jawaharlal Nehru and Madam Indira Gandhi, in the field of science and technology, we have achieved a lot. Our country is the third largest in the world in regard to science and scientific manpower. In spite of that, we lack what is called the scientific outlook or scientific temperament. It is true that we are able to supply to other countries including developed countries scientists and technicians and experts because of the large number of institutions we are having. But, with all this, a proper scientific outlook or temperament so far could not be inculcated in the minds of the people. This is what I feel. I do not say that we are not at all having or completely lacking it. But it is not to the extent that we should have when we consider the large manpower of scientific experts we are having.

If you analyse it a little more we can see that the regionalism, communalism and all such sorts of violence, anarchy and chaos are also due to the lack of scientific temperament and outlook of the people. Therefore, the most important thing according to me for the Department of Science and Technology is to try for inculcating that scientific temperament among the people. For this, something has to be done in our educational system itself. In our educational system science is taught as history. Students will be learning something of the history or language, and some narration, or doing some experiments, etc. But that is not the proper scientific education. Proper scientific education is based on a pursuit of knowledge, a real thirst for knowledge and inculcating a spirit of inquiry into the minds of the people and a spirit of research. So my suggestion is that the Department of science and Technology should react with the Education Ministry and try to re-orient our educational system so that the basic motive is to inculcate a scientific temperament in their minds.

In this connection, you may recall that Madam Indira Gandhi in 1976 by a constitutional amendment has brought in the fundamental duties of citizens. Department of a scientific temper has been included in the fundamental duties. But we are not doing anything to develop a better scientific outlook among for our people.

Again, why is science? Science is not for science only. Of course, there is pure science and many people for pursuit of knowledge and for enhancing their knowledge conduct research and new discoveries are made. But for a country like ours science is for development and research is also for development. But I find a lot of difference and gap exists between actual research and actually what is done in the field. The result of research is not transmitted to the field where the benefits of research are required. I would suggest that a study should be conducted on this aspect alone.

We have a number of Universities and a number of institutions of excellence where research of a high standard is taking place and our scientists should be complimented. But the benefit of research should be percolate to the society and it is the duty of the Department of Science and Technology to see that these benefits percolate down and pass on to the society. I hope the Minister will take note of this.

Again research should be purpose-oriented. Our Prime Minister himself recently said about mission-oriented research. What is the purpose-oriented research in our society where a good section of the people are below the poverty line?

The research should be so oriented as to benefit the poor people. There should be research in sophisticated field, I admit; there should be research for increasing knowledge; I admit. But what is the percentage of research that is being directed to benefit the poor people. I

think it is not to the extent that we want. I would like to quote one or two examples. Take the case of the bullock cart. The bullock cart is one which is being used by lakhs and lakhs of poor people in our country, they earn their livelihood by using it and it is very much a fuel-saving transport. Is there any research conducted on that to make the bullock cart more efficient, to make its output ratio greater? I do not know whether anything is done? Have you devised a bullock cart of better efficiency? I think our scientists should turn in that direction.

AN HON. MEMBER : I think, your motive power is bullock-cart.

(Interruptions)

PROF. P.J. KURIEN : My point is efficiency should be increased. That can be increased by designing a more efficient bullock-cart. I want that research should be conducted in this field.

I am happy that some work has been done in the area of fuel saving. For example, I read in your report that you have devised a new stove, smoke less stove, more efficient stove. I congratulate you for that. Some work is being done there. Some research was done on fuel efficient stove and smokeless stove. So, you got the result. Again there is research for the poor man on construction of cheap housing. Something has been achieved. But that is not enough.

Sir, cycle is the common man's transport. To increase the efficiency of cycle, is there any research? If it is not there, it should have been done. Increasing the efficiency of the cycle is very important. I know that, some foreign cycles, if you ride, you will find them is more easy. It is possible here to increase the efficiency of cycle by conducting research on that and devising more efficient cycles. All these are possible provided research is oriented in such a

direction as to benefit the poorer section of the people. But I would also like to congratulate our scientists because we have made good achievement in the field of bio-gas. After China, we are the second in technical know-how with regard to bio-gas. But what is required is the propoganda on that bio-gas technology and the assistance for that. I hope the Ministry will take note of this.

Again I come to devising non-Conventional energy and harnessing it. In all these fields, I suggest greater emphasis in research should be laid. It is not enough to have research in sophisticated fields; it is not enough to have high-tenhnology fields. But in these fields, if you concentrate and spend more money, I am sure that will go a long way in ameliorating the conditions of the poorer sections of the people. I hope the Minister will take note of this.

Coming to my second point, I find that in our country, there is a lot of scientific manpower available. That scientific manpower is used by Western Countries, USA and other countries to increase their productivity, and efficiency. There is also a lot of frustration among our scientists. The bureaucrats will pardon me. The scientists in our country feel that they are inferior to bureaucrats. I strongly feel that that feeling should change. Frustration among scientists need not be due to only one factor, that is, being placed in an inferior position vis-a-vis bureaucrats. There are other reasons also like lack of facilities for research. I am sure a scientist would like to increase his knowledge and, therefore, he wants research facilities. Because of lack of research facilities there is frustration. There is frustration also due to lack of proper salary and other facilities. Therefore, a number of our scientists, doctors, engineers and experts in various fields actually migrate to other countries. Why many of our engineers, doctors and scientists are working abroad is because of these reasons.

[Prof. P.J. Kurien]

There is a lot to be said about brain-drain. I do not want to say much about it now. But it is a fact that the precious investment of our country is being drained to other countries. Recently I read an article in some newspaper where it is said that, due to the migration of medical doctors alone, the loss to our country is 144 million dollars. When a doctor goes abroad and serves there, think of the money that we have invested on that doctor for getting him trained. But the services of that doctor are being utilised in other countries like the USA. Therefore, instead of technology being transferred from developed countries to under-developed countries, here is a phenomenon where technology is being transferred in the opposite direction; this is negative flow of technology. It is there not only with regard to doctors, engineers and scientists but also in other respects. The negative flow of technology is one of the serious problems that the developing countries are facing. We are also seriously facing that.

I admit that the hon. Prime Minister has said in this House that it need not be considered as a brain-drain; these scientists abroad can be considered as a 'brain-bank'. I agree. They can be considered as a brain-bank provided we can send a cheque and draw that money from the bank. They can be considered as a brain-bank provided you create certain conditions. Number one, they should be willing to come back. Number two, you should create conditions conducive to their coming back. Number three, after coming back they should feel that the situation which was existing here before they went abroad is not there. Are you doing something in that direction? If you are not doing, then you cannot expect the scientists to come back. I am prepared to consider them as a brain-bank. But what steps are you taking in that direction? Whatever steps you have taken so far are not satisfactory. Can you tell us, how many scientists of eminence, doctors of eminence and engineers of eminence have come back to our country? I know there are some applications. But those

applications will be processed by the bureaucrats and they will be delayed. Recently a scientist came to Kerala, and he told me, "I wanted to come back to India; I am now running from pillar to post and I am finding it very difficult because of red-tapism". The bureaucrats are not permitting the scientists to come back. I would suggest to the hon. Minister to devise some programme by which at least a percentage of these scientists who want to come back are encouraged to come back. You are organizing Festival of India and other things. Why not convene a Conference of these scientists in other countries, talk to them there, ask them what they want and provide those facilities here? I am sure, it will never be a loss to our country if you can bring back some of these experts and scientists. I hope the hon. Minister will take a note of this and take proper steps in that direction.

Sir, I am conscious of the time limitation. So, I am now coming to Electronics. In the field of Electronics we have made tremendous progress within a short span of time. I must congratulate the Minister and the Department of Electronics for that. I have no objection, as has been said earlier, for importing technology and technical know-how. We have to import scientific knowledge. Technical knowledge or technology is not somebody's property. It is the result of the pursuit of scientists. A real scientist is a world citizen. So, we should import technology but at the same time when we import technology, that technology should be utilised to develop our own indigenous know-how and technology. The important point is, whether you are doing this or not. Keep on importing technology continuing like that is not the proper way but we should import technology, use that to develop our own indigenous technology so that in the end we should be able to be in the forefront of the developed nations without importing technology.

In this connection I again congratulate the Minister and the Ministry for the new

cooperation that you have started with Japan. I know that last year some agreements were reached between Japan and our country. I welcome that. Japan is a good example for us in the field of industrial development—specially in the field of electronic development. But in this field I strongly recommend that we should follow the path of Japan. That is also a country with high density of population which is very much similar to ours.

Therefore, close cooperation should be there between us and whatever technology is made available to us from that country should be used to increase and better our indigenous know-how.

There are other countries like Korea, Taiwan who have used the cooperation from other countries and have brought about great economic development. Sir, what is more required more is that a kind of electronic culture should develop in our country. Because electronics is a branch which can create results that you cannot believe.

I welcome that you have started in schools teaching about computer literacy. That is not enough. Computer literacy, temperament for electronics and affinity for electronics should be created among the masses. That will go a long way in improving and in getting better results.

When I say electronic industry, it has certain specialities. The most important is that the electronic industry is pollution free. In other industries the problem of pollution is there; but there is no pollution in electronic industries or at least it is less. That is number one.

Number two is that the per capita investment per employee is much less than in any other industry. Number three is that a large number of people can be employed in electronic industries. Therefore, my humble submission is that the allocation made for this department is not sufficient. I find from your book that Rs. 997

million have been allotted for 1986-87. I submit that this is not enough for electronics. We should make better allocations for electronics.

Again, with regard to electronic industries the submission that I have to make is that the electronic industries should not be concentrated in cities. This is an industry—we talked about concentration of industries in cities—which can be taken to villages and to hilly areas. In hilly areas you cannot set up other industries due to lack of infrastructure. So, electronic industries should be shifted to hilly areas.

My constituency Idukki is entirely hilly area. There is not even a single industry in this district. So, my only request to the Minister is that please do something so that at least an electronic industry is set up in my constituency, Idukki.

Sir, coming to ...

MR. CHAIRMAN: Please conclude.

PROF. P.J. KURIEN: Please give me two-three minutes more.

MR. CHAIRMAN: Please conclude in one minute.

PROF. P.J. KURIEN: I have only two more points.

With regard to atomic energy our country is committed to peaceful use of atomic energy.

13.00 hrs.

We are very much in progress and we are having our nuclear power stations. I request that the Ministry may examine the possibility of setting up a nuclear power station in Kerala also. Already a study has been made and the report is with the Ministry. The Government should go ahead with that proposal and setup a nuclear power unit in Kerala.

[Prof. P.J. Kurien]

Sir, coming to oceanography I have to say that again the credit goes to Madam Indira Gandhi for starting the Department of Oceanography. That department is working very well. I congratulate them. But one important point is that we have 2 million hectares of exclusive economic zone of sea waters. This 2 million hectares of exclusive economic zone should be surveyed because a large amount of fish potential is there. This has not been done. Recently when I studied the export of fish from our country I found that our marine resources are on the decline on the western coast. Nobody knows the reason for it. Somebody says it is on account of over-exploitation but there can be some other reason also. So, for better conservation of resources and better resource management a serious survey of the total exclusive economic zone should be conducted.

MR. CHAIRMAN : Please conclude now.

PROF. P.J. KURIEN : Sir, I have some more points. For lack of time I cannot go into them. So, I will write to the Minister about those points. With these words I support the Demands [of the Ministry of Science and Technology.

MR. CHAIRMAN : Now, I think, if the House agrees we will adjourn for lunch.

13.02 hrs.

The Lok Sabha then adjourned for lunch till fourteen of the Clock.

The Lok Sabha re-assembled after Lunch at four minutes past Fourteen of the Clock.

[MR. DEPUTY-SPEAKER *in the Chair*]

[*Translation*]

SHRIMATI KRISHNA SAHI (Begusarai) : Now-a-days there is hard duty for Mr. Deputy Speaker also,

MR. DEPUTY SPEAKER : It is good.

[*English*]

SHRI GEORGE JOSEPH MUNDACKAL (Muvattupuzha) : Mr. Deputy-Speaker, Sir, I support the Demands for Grants relating to the Ministry of Science and Technology and I congratulate the hon. Minister for a good budget and increasing the allocation for this Ministry. Sir, in this connection, I would like to bring to the notice of the hon. Minister through you and also to this august House that in the electronic field, Japan and Korea have gone much ahead of us. We have to spend more and more of amount for the development of electronic industry in our country. A good number of scientists and professors have gone to foreign countries for better prospects outside our country. Now, because of oil crisis, people from Nigeria and some of the Middle-East countries are returning back to our country. Sir, as you know, the literacy percentage in Kerala is the highest and there is a high percentage of educated people in Kerala. But unfortunately, unemployment problem is so acute in Kerala. Though the people are quite intelligent and capable, yet they are going out in search of work and there is no encouragement and no work in their own State and the country. I request the hon. Minister to invest more amount on electronic industry and start more factories in our State.

Within the next 4-5 years, we are going to face a big power crisis in our country. Whenever the State of Kerala puts across hydro-electricity schemes, it is said that the ecological problems are there. We are far away from the coal area and there is difficulty in starting thermal power stations Kerala's future, therefore, depends on nuclear energy, atomic power stations. The Minister must take more interest and allot more funds in order to start some nuclear power stations in Kerala.

Further, in order to give suitable

encouragement to scientists, they may be sent to more developed countries like Japan and Korea to learn and have more technical knowhow. The new industrial zone is coming up near Cochin and we are going to start many industries. We have got manpower, we have got intelligent people and there is a large scope for starting electronic industries. The future of our country depends on electronic industries; we can export these goods and earn foreign exchange. We can also provide work to more workers.

I congratulate the Minister for introducing such a good budget. At the same time, I would urge upon the Minister to have a look at the undeveloped and underdeveloped areas, especially States like Kerala in these matters.

SHRI G.S. MISHRA (Seoni): Mr. Deputy-Speaker, Sir, by the turn of this century, lots of problems will arise and one of the most important problems will be the population explosion and to feed them we may have enough food, but to cook the food we may not have enough energy. By the first decade of the next century, all oil resources, gas resources and other fuel like coal may diminish. The forests will not be there to provide fuel wood. So, the main thing would be to provide domestic fuel as well as industrial fuel. Because of paucity of coal, coal based thermal power stations may not be a possibility at that time, it will be a problem. The forests would not be there, all your lakes which have been created or will be created will, therefore, be silted. If oil and natural gas reserves get exhausted, then it will be very difficult for us to get fertilizers and chemicals and other inputs required for agriculture. In this way, we find that the beginning of the next century will face a lot of problems.

But, what is the solution to overcome these problems? We have to conserve coal, we have to conserve oil and natural gas and we have to conserve all the fossil fuels. Otherwise, we will get into such a

difficult position and it will be impossible for us to get out of it. If we are to conserve fossil fuels, question arises as to which fuel we should use and whether we have got any renewable fuel. The answer is, 'yes'. We have got it. After all, the successful commissioning of the Kalpakkam Nuclear Power Station is a proof that it will provide us renewable fuel. For the first time in our country, our scientists have successfully used a new mixed-carbide fuel—70 per cent plutonium and 30 per cent uranium—in the FBTR. It is indigenously developed, and India is the first country in the world to use this carbide fuel, thanks to our scientists, to the Chairman, Dr. Raja Ramanna and thanks especially to our Prime Minister, who is the driving force to give inspiration to them. I also thank Shri Shivraj Patil Minister of State for Science and Technology.

We have got abundant deposits of thorium which are being successfully experimented to be used for this purpose. The fast breeding reactor is a reactor which generates more fuel than what it consumes. Hence, it produces more plutonium than it consumes. Therefore, nuclear power is the only answer to the problems of fuel, whether domestic or industrial, in the coming century.

But I would like to mention here that only 2.6 per cent of the total energy produced in India is from the nuclear source, and this time also the budgeted provision as also the demands are so meagre that hardly 12 per cent growth will be there in nuclear energy by the turn of this century. This is rather very sad. In France, though the population is much less, 60 to 70 per cent of their total energy requirements is generated from nuclear sources. So also, Korea, Japan, USA, USSR, UK and many other countries have taken up this programme in a big way. But we are going very slow. Besides this, nuclear agriculture, my friend Shri Vikhe Patil was very much concerned about that because he is a famous agriculturist, you know Minister Sir. He says, he wants seeds. He is showing me this book, but what to do, I

[Shri G.S. Mishra]
cannot give him the seeds. Only you can give seeds. But you don't have seeds.

Then comes radio pharmaceuticals, nucleonic gauging, nucleonic sterilisation of medical products, radiation sources, such as Cobalt-60 for treatment of cancer, radiation medicines, post control etc. require more attention. They require further more concentration.

As regards the problems for nuclear waste disposals which my friend may put up, that is, how to dispose of the waste. It is not a problem today. So also nuclear accidents. There has never been an accident in a nuclear power station. But there might have been several accidents in a thermal power or hydel power projects. The burnt ash gives more gama rays, radionuclides in the thermal power stations. Hence the answer to the problems which are bound to come in the future Century lies in the nuclear science and so produce cheap fuel for domestic or industrial use.

With these words, I support the demands.

PROF. NARAIN CHAND PARASHAR (Hamirpur): Sir, I appreciate the good work done in the Departments of Science and Technology Ocean Development, Space and Electronics. Sir, India owes a debt of gratitude to our first Prime Minister, Shri Jawaharlal Nehru who initiated the Congress approach to the economic development of the country; based on science and technology. When he was the Chairman of the National Planning Committee, he rejected the suggestions that India should not take to science and technology and depend upon Cottage Industries. He said, "There is no use doing this because political freedom without evolution of a modern society and a nation based on science and technology would be a retrograde step." He cited the example of Egypt which was politically free, but economically dependent upon the West and hence he took important steps in the very beginning on leading the nation on the road to science and technology, and we are grateful to him and other visionaries of those days who

chartered their course very clearly from the very beginning.

Sir, today, we have not only our national laboratories, but also science academics. Good work is being done at the Science Academy, Bangalore set up by the only Physics Nobel Laureate of our country Sir C.V. Raman, the Academy at Allahabad is a National Science Academy set up by Dr. Megnath Saha and similar other prestigious institutions have done a pioneering work. And I am happy to learn from the report that sixteen young scientists have been selected for various incentives. They are all below the age of 32 which gives an idea of the interest that has been stimulated in this country among the younger generation of scientists and the good work that our scientists are doing. The Sir C.V. Raman Award this year has been given to Prof. MGK Menon who is our pilot in charting the course of science and technology in this country.

The various initiatives taken in the 6th five year Plan are being sought to be consolidated in the 7th five year Plan. This is a step in the right direction. We have many plans at hand; and one of the principal activities of the Department of Science and Technology has been to catalyze and promote research in gap areas frontier disciplines and emerging interdisciplinary fields of science and technology.

Cooperation at the national and international levels between scientists and their institutions is of primary importance; and I am happy to note that Government is extending a wholehearted support to this aspect of the programme.

A new thrust has been given to the schemes which have a direct impact on the utilization of science for society. While it may not be very interesting to discuss the theoretical and other practical and applied aspects of science, it would be of interest to know as to how the scientists of our country are helping us in the evolution of the society, for which our freedom fighters and patriots had dreamed decades ago.

The involvement of the scientists in manpower research, and also in the optimum utilization of the various sources of economic potentialities in this country, is another important field. In the 7th Plan, all this is sought to be further accelerated. It is very interesting to observe that the contribution for the life sciences which used to be nearly 50% of the total funding for R&D, is being de-segregated, and now the physical sciences have got as much as 42% of the total funding, with the areas for life sciences coming a close second with 41%, which means that physical sciences have been given their due, and they have come to occupy a greater share of the funding.

Similarly, various other schemes in the process of decentralization by giving scientists greater authority at the lower level, have also been initiated. Programme Advisory Committees have been set up, and incentives for various conferences and seminars have been given. It is in the field of electronics that we can hope to bring in an economic revolution, because electronics offers a rich potential for productivity, and also for various other aspects of human activity. Today, we have to depend upon electronics and computers in the various walks of life.

Safety is of primary concern in air, sea and train or surface travel; and it is here that electronics and computers help us in this task of what is called signalling and telecommunication.

Not only this: we have been able to go quite far enough keeping in view our resources, in the field of Space research; and I congratulate the Department of Space and those scientists who are involved in it, for utilizing the various channels provided to us, by INSAT I-B.

The burning of 'Challenger' in the United States early this year was a catastrophe of a very high order which may result in some setback to future space programme.

But as of now we have made significant progress, and it is interesting to note that as on 31st January, 1986, INSAT IB has completed 29 months in orbit, out of which for 27 months, it had been fully operational, and as on February 1986, 37 telecommunication terminals have been provided by INSAT IB in this network and 3956 two-way voice or equal to long distance telecommunication circuits on 67 routes have been provided; and it is with the help of this space programme initiated, carried on and accelerated by our scientists that it is possible to have telecommunication facilities with the help of earth stations: and earth stations in the field of telecommunication are a boon to our country.

Some of us who may have to visit areas like Lahaul, Spiti, Kalpa in District Kanaur, Leh in Ladakh and Kargil, etc. where no ordinary physical line can be laid for the provision of telecommunication, it is a wonderful sight to see that the people will be getting these facilities with the help of the satellite and the channels being provided by INSAT IB, not only this for meteorological warning in the coastal district, science is coming to our rescue and we have an initial set of 100 disaster warning systems known as DWS which have been received in the coastal area or you can say selected coastal area; and it is a very interesting piece of information gleaned from this Report that in February 1986 10,000 meteorological earth observations images were indicated with the help of INSAT IB. So, this is the magnitude of the progress that this country has made in the field of space research and in utilising the various achievements of science not only for the help of our telecommunication engineers but also for farmers who are living on the coastal side and for the population which has become a frequent victim to the cyclones immediately whenever they emerge, and therefore, warning can be given now well in advance. In the field of T.V. and radio, space programmes have come to our great help and I learn that by the end of 1985 December, 173 TV stations (Doordarshan Kendrays) in this country out of 179 in all had been evolved in the various INSAT IB programmes and

[Prof. Narain Chand Parashar]
networks that have been provided ; and similarly 93 All India Stations have also been given help by important signals and other communication signals by the INSAT B. Our programme for the launching of INSAT IC is going on and is progressing well, and our plan to launch the INSAT ID is also sanctioned. So, this is the picture of the emerging scenario when science is going to help not only our signalling, telecommunications but also in new areas which are emerging like telemetrics and may be other allied areas.

I would like to place on record my appreciation of the good points that were emerged. I would like to make also a plea ; the plea is that mother of sciences that is mathematics which is having a theoretical base, which provides us help for propelling science in all directions should also be looked after well and Mathematics and geography these days are also sciences which require State patronage to an extent to which it was not required earlier. It was possible earlier for discovering the velocity of escape and thereby carry on research in space programmes. It was also possible to charter earlier the path of a trajectory and ensure launching of satellites. It was possible for the scientists working in schools and colleges and universities, but now much more sophisticated equipment is required even to carry on theoretical research in advanced fields of mathematics and various other sister disciplines.

So, Sir, I would plead for a better patronage to mathematics for application in applied science and technology, in space programmes and in various other branches of our scientific activity.

With these words I appreciate the good work done by our scientists and congratulate the hon. Prime Minister and also the hon. Minister, Shri Patil for pioneering this work with the help of our scientists.

[Translation]

SHRI D.P. YADAVA (Monghyr) : Mr. Deputy Speaker, Sir, for a person like me,

today is not a day for making speeches, but it is a day of pride and honour. Pride and honour for the achievement made by us in the field of science as also for our new thinking in this regard being now translated into practice. A large number of people, who have keen interest in science, sometimes raise this question as to which was the place where science was born in India? Some people say that science in India was born in a laboratory in Calcutta and some other say that it was born in a laboratory in Madras and still some other feel that science was born in a laboratory in Allahabad. But I feel that Science and Technology in India was born in a Jail at Ahmednagar and the person who conceived the idea of scientific approach was a visionary of the age, freedom-fighter and the leader of all of us. He did not have the idea whether he would be released from Jail or not, but he used to think about the future of India. That person was a student of science and his name was Jawahar Lal Nehru. He wrote "Discovery of India" and when he wrote this book, he was not confident whether our country would ever achieve freedom. Even then whatever ideas came to his mind, he wrote them in his book. He wrote :

[English]

"It is science alone that will solve the problem of hunger and poverty and remove insanitation and illiteracy. The future belongs to science and those who make friends with science."

[Translation]

This is what has been written in "Discovery of India" in Ahmednagar Jail. We salute that leader a thousand times, the leader who has established us firmly. (Interruptions) I would not like to say anything in this regard, but I must say this much that Meghnath Saha, Sir C.V. Raman, H.J. Bhabha or Vikram Sarabhai, all these scientists had worked under the leadership of Pt. Jawahar Lal Nehru. His leadership had encouraged them and provided an atmosphere to them to do pioneering work in the field of science and establish

themselves firmly. We cannot forget this fact. One may take it lightly but the fact remains that whether it is the field of Atomic Energy, Space or the field of Electronics, the foundation of Science in India was laid by one person only and his name is Jawahar Lal Nehru.

We would have to repeat at present our that past which has brought us at this juncture. Our scientists are also sitting here. They are about thirteen in number. With the new ideas and new thoughts they are trying to create a new world. They are working with complete dedication not only for India; but also for the entire humanity. Now whether there is Shri J.C. Bose or Satyen Bose or C.V. Raman, their ideas were implemented by scientists like Dr. Menon, Ayyangar, Ramanna, Rao, Dhawan, Yashpal, Nayadumma, Srinivasan, Swaminathan and Krishnan. All these Scientists are working in their laboratories with young scientists and marching forward to create a new world. We salute all these scientists and we feel pride in congratulating them.

We do not know whether they have done anything for their personal benefit or not but they have brought their country to a place, where we are no longer required to beg and we are self-sufficient.

Perhaps there would not be any person who would not be happy to see the Kalapakkam Atomic Energy Plant, its fabrication, its designing and its transmission? Who has done all these things? Our own scientists have done all these things, this is our achievement. It should be clear to all that the credit for the atomic explosion at Pokharan goes to the intelligence and knowledge of our scientists,

14.36 hrs.

[SHRI ZAINUL BASHER *in the Chair*]

But the most important thing behind all this is that these scientists have not only made the science in India self-reliant; but

also self-sufficient. Self-reliant and self-sufficient science has brought about national self-confidence. The country which is not self-reliant and self-confident, cannot make progress in the field of science and technology. Instead of begging to keep our body and soul together, our endeavour is to achieve self-sufficiency and march forward even though we might be hungry. Our aim is to create a new world by achieving self-sufficiency.

When we talk of indigenous expertise, we can say that in any field wherever we see indigenous expertise, it appears to us that our scientists have definitely marched forward and we have reached new heights.

Years back, when Jawahar Lal Nehru thought of Bhakra Nangal Project, some people belonging to opposition parties misguided the innocent people of this country and told them that Jawahar Lal was a mad man who had thought of such a project. He would extract entire electricity from the water and when the essence is gone what would remain in the water? What was their intention and how those innocent people were misled by them. Today we have brought people to a stage where they are able to understand as to what is power generated at hydel power projects and at nuclear power stations. The superstition about energy has been removed. Those days some people used to ridicule all these things and were afraid of these things. Mr. Chairman, Sir, today that situation has changed. This is a gift of the scientists.

Whenever a meeting of Indian Science Congress was held, Indiraji used to address the Congress herself. In the Science Fairs and the sessions of Indian Science Congress Indiraji had said such things which show that she had a picture of India in her mind. In 1977, she had said :

[English]

“Our scientists must remain ever vigilant against the attempts of various foreign interests and by

[Shri D.P. Yadava]

analysis and communication; challenge their scientific and technological arguments to deflect us from the path."

[Translation]

Some foreign powers might have done certain things which could have deflected us from our path. Indiraji had asked the scientists to remain vigilant against the forces which wanted to deflect us from our path. It is your struggle, it is your policy, it is your highest ideal. It was a matter of policy and not a matter concerning one single individual. The person who formulates the policy, decides as to which direction the country has to move.

Mr. Chairman, Sir, I would like to give a small example. All of us come from villages and belong to the villages. When we used to return from the school, we used to throw a small piece of stone. There used to be competition as to whose stone will cover more distance.

SHRI SAIFUDDIN CHAUDHARY :
At whom ?

SHRI D.P. YADAVA : At ourselves and used to ask each other as to who could throw the stone to the maximum height. At that time we could not then imagine that in this very country there are certain people who are sitting in the laboratory and are thinking as to how they could send a small box weighing 34 kgs. to a height of 300 kms to 400 kms. When D.P. Yadav was a student, he had only this much understanding, and at that time Pt. Jawahar Lal Nehru was the Prime Minister of India. He was a great intellectual and visionary and that is why, now our scientists are not only thinking of manufacturing a satellite weighing 1000 kgs and sending it through a rocket to a height of 36,000 kms., but such an experiment has also been carried out successfully. This is our science. This is our policy and this is our struggle. This is what we have done. From the piece of stone which was thrown up by hand, we imagined about missile and then from missile, we raised our imagination to

satellite. Bhaskar-I was a satellite weighing 34 kgs. Now we would be capable of sending satellites weighing 1000 kgs. and 1500 kgs. in 1995 A.D. This is a new determination, new step to march forward. We reiterate that resolve today.

The need of the hour is as to how we should spread science. I would like to submit one thing that though India has produced emissary satellite, Photo Interpretation Centre, Launch Vehicle etc., yet this knowledge has to be spread to the schools in villages and students, teachers and instructors should be explained told at what stage our science and technology has reached and that now we are self-reliant in this field. We would make even more progress for the development of the nation. We would have to see as to how it could be done in the inter-weaving education system. It is very essential to do so.....
(Interruptions)

[English]

SHRI S. JAIPAL REDDY : I think we must import self-reliance, Sir.

SHRI SOMNATH CHATTERJEE : You do not get upset, you continue with your oil technology.

SHRI RAM SINGH YADAV : The Opposition is always non-serious, Sir, even on this sensitive matter.

SHRI S. JAIPAL REDDY : When primary education on science is being given, how can we be non-serious. Sir ?

[Translation]

SHRI D.P. YADAVA : Now there is the question as to which direction we should take our Science and Technology. The ideas which had been put forward by our leaders and which has also been supported by our present leaders are freedom from hunger, removal of poverty and bringing happiness and prosperity in each family, each village in the countryside.

With the help of remote sensing photograph process, we will have to explore the wealth like oil and gas under the sea. By ensuring all three things, we think of creating a new India. This is our achievement. Our Scientists have done an excellent work in the field of defence, whether it is in the field of Defence Research Laboratory or Defence Production Centre. We are going to manufacture Pilotless Target Aircraft. This would definitely be a great achievement in the war technology. We should be proud of it. We would like to express our thanks to our Scientists for their achievements in the field of war strategy and war technology and for their dedication to the work. Whether it is in the field of Rural Development, Industry, Defence, Electronics, Communication, Power, Energy, Atomic Energy, Space or Oceanography or any other factor which might make contribution towards development of the country, our Scientists, our Science, our Laboratories and our leadership are capable to create a new India by integrating all these things, and the coming future is definitely good for the country.

In the end, I would like to say that our Scientists who are working in our Science Laboratories would have to be freed from the worries of their household problems. There is need to pay special attention towards providing amenities and facilities to them. They should be freed from their household worries and the worries of the nation should be entrusted to them and you should take care of their worries.

I support the demands for grants of this Ministry and I would like to express my thanks to the hon. Minister for giving a new direction. I hope, you would not rest your gass here, but create a new situation and march forward. With these few words, I conclude and express my thanks to you.

[English]

DR. CHINTA MOHAN (Tirupati) :
Science and Technology and Research and
Development is the source of strength and

means of modernisation to eradicate ignorance and poverty in the country. We have got 2.5 million stock of scientists today and every year we are producing 1 lakh 60 thousand scientists and technologists in our country. We are third in the world to produce good scientists after the USSR and the USA. I congratulate our scientists for all this. When we look at the policies and principles there is a big hiatus here. Our elders have given us good policies in regard to Science and Technology; but we find lot of gap between preaching and practice. Potential and progress, and pronouncement and performance. We see lot of incompetence in these two areas. Our late-lamented Indiraji said in a meeting of the Planning Commission that one action is better than hundred intentions. I don't know whether the present Government is practising this idea. We are known in the world for contradictions. We always talk about self-sufficiency self-reliance and modernisation of industry. We are touching the orbit but we are not able to produce a nice carburettor for our cars. This is the sort of self-sufficiency and modernisation that we have in our country.

Coming to Agriculture, we have got the Indian Council of Agricultural Research. We have so many research institutes in the country. We say that we have self-sufficiency in foodgrains. We are producing 150 million tonnes of foodgrains. But we are importing so much of oilseeds into the country. This is the self-sufficiency we have in the Department of Agriculture. I think the Government is aware of the people who are below the poverty line, I think the Government is aware of the starvation in the country, I think the Government is aware of the people who are dying on account of starvation and thirst, and I think the Government is also aware of self-sufficiency that we have now. For all these, we need social transformation and we need structural changes in our country. Then only we can get self-sufficiency. We have high scientific development in the country and we have also high mortality. The children in our country die due to malnutrition and

[Shri Chinta Mohan]

we are not able to give them even simple drugs like B-Complex and Dapsone, which is a very simple drug, but which is very essential to cure leprosy. Unfortunately all these things we are importing from outside. This is the position in the country and this is science and technology we have. We need science and technology not only to launch SLV, PSLV, ASLV and all that, but also to eradicate poverty and ignorance of our people.

Sir, we have research institutes in the country, we are spending so much money on them. Can you look at these Institutes? I would like to put a question here to the hon. Minister: Are these research institutes result-oriented? Are they time-bound? Are they mission oriented? They are only job-oriented. Our people need employment and shelter.

We like science and technology and its development. But we also need food and other basic requirements.

We talk about research and development, but there is a long gap between research and development. We talk about ocean development. We go deep and drill six miles into the ocean, and we talk of nodule and put it before an electronic microscope. And so we have an enormous amount of nickel, uranium gold etc. What is the use of taking one nodule from the ocean? If at all you are serious, take out tonnes of nodules from the ocean and improve the economy of our country. This is not the type of development we require in our country at present. We require this sort of development after the 20th century or in the 21st century, about which the Prime Minister is never tired of talking. But at present we need food and other basic necessities and the Government should not forget about it.

There is a lot of gap between concept and construct. I do not know how much the Government is spending on process engineering. It need a lot of money. I do not know how much we have allotted from the First to the Seventh Five Year

Plan. Without this process engineering we cannot get construct in science and technology.

Finally, I would like to put a specific question before this hon. House: How this high technology development is going to help to eradicate poverty and unemployment?

With this specific question, I would like to conclude.

SHRI S. JAIPAL REDDY (Mahbubnagar): Mr. Chairman, Sir, it is of course a truism to say that our country's prosperity and security will depend on the correct formulation and effective implementation of our science and technology policy. Our successive governments have been successfully mouthing this platitude but we have not made much headway in that direction. There is something wrong with the structure of our scientific administration. Earlier, the Union Cabinet used to have an advisory council on science. Suddenly the Cabinet has been relieved of it and the Prime Minister has been burdened with it. I do not understand, much less appreciate, this process of elevating the office of the Prime Minister to a higher pedestal than the entire Cabinet of which the Prime Minister is the chairman. In addition to the scientific advisory council, he has also the scientific adviser, Prof. M.G.K. Menon. This scientific advisory council has 7 members. Well, the Government wants to choose. But I am really intrigued how two people could find their way on it. Let me refer to one**. Works Manager, Indian Explosives Ltd. I would like to know as to what has been his distinctive scientific contribution. He might have been a childhood pal of our Prime Minister. Does everybody derive genius merely from association? I do not know. The Indian Explosives Ltd., is a subsidiary of Imperial Chemical Industries.

I may also draw your attention to another member of the council,** Chairman, Hindustan Lever Ltd. This is a

**Not recorded.

subsidiary of Uni Levers Ltd. In regard to the implications of many scientific policy thrust and decisions, even Parliament is sought to be kept in the dark because of security considerations. I do not know, how these worthies of transnationals are being trusted when Parliament is not taken into confidence. Our scientific administration is now led and manned by self-perpetuating super-annuated scientific czars, the same worthies strut across the stage. At least, I am tired of their sight—I do not know how the Government is not tired. Take the case of** In my view, he was a brilliant scientist to be. He did some real good work 20 years back. I do not know what work he has done in the last 20 years. He has lost his way in the labyrinth of administration. I do not know why good scientists are sought to be spoiled.

MR. CHAIRMAN : Mr. Reddy, you don't take names.

SHRI S. JAIPAL REDDY : I am not attributing motives. I can express my opinion.

MR. CHAIRMAN : It is better if you do not take names.

SHRI S. JAIPAL REDDY : I am afraid that even individuals are sought to be elevated to the status of sacred cows.

MR. CHAIRMAN : You are attributing motives. He has not done for 20 years, you said.

SHRI S. JAIPAL REDDY : No, it is not motive.

MR. CHAIRMAN : It is I who judge.

SHRI S. JAIPAL REDDY : It is the policy of the Government.

MR. CHAIRMAN : You will not take names.

**Not recorded.

SHRI S. JAIPAL REDDY : Please invoke a rule before advising me.

MR. CHAIRMAN : The names may not go on record.

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI SHIVRAJ V. PATIL) : Sir, may I make a submission ?

It is the practice of this House not to mention the names. If any officer has to be mentioned, he is mentioned by his designation.

MR. CHAIRMAN : That is right.

SHRI SHIVRAJ V. PATIL : It is because the officer whose name is mentioned, has no opportunity to come to the floor and defend himself.

SHRI S. JAIPAL REDDY : I have also some experience in the business of the House. No allegations can be levelled against any individual without giving a notice. A reference to an individual in regard to his contribution can always be mentioned.

Any-way, Sir, now let us take the Atomic Energy Commission. There are 7 members. I think, the Atomic Energy Commission is entrusted with the task of implementing our programmes. But then, Sir, the members of the Atomic Energy Commission are the worthies who are also adorning the Department of Atomic Energy.

15.00 hrs.

The same people formulate the policy, execute the policy and oversee the policy. I do not think even the Minister of State is entitled to pry into what they are doing. Only the Prime Minister is supposed to do that.

On this Atomic Energy Commission, Mr. J.R.D. Tata is a member. I have no objection to the nomination because he was originally associated with the entire research. But then (*Interruptions*)..... I am not ignorant of it. I have some regard for him.

But the point is the Tata companies get 50-60% of the contract of the Atomic Energy Department. In that case, how the Chairman of that company be allowed to be a Member of this Commission?

I am one of those who believe that the programme of atomic energy production should be strengthened because this is the trend all over the world.

But look at our records. Way back in 1964, late Shri Homi Bhabha said that in 1980, 12% of the energy produced in this country would be from the source of atomic energy. Today in 1986 it is less than 2%.

It is a matter of gratification to note for us as a nation that our fast atomic reactor at Kalpakkam has achieved a breakthrough in respect of fast breeder technology.

But then we must remind ourselves of the fact that we are still at the experimental stage. By the time we make the process commercially viable, the other nuclear powers of the world will have reached another stage, what is known as fusion technology.

Take the nuclear fuel complex. It is set up at Hyderabad. It was originally to be set up at a cost of Rs. 10 crores. It had cost Rs. 153 crores. Nobody can look into the manner in which the money was spent. There must be some accountability.

We did make considerable progress in respect of technology though we have got to do lot more on remote sensing satellites.

We must congratulate ourselves on the Antarctica expedition. My friend Shri Chinta Mohan was referring to the few nodules that were secured from the ocean. I think this is a considerable achievement by itself.

SHRI CHANDRA PRATAP NARAIN SINGH : Congratulate the scientists.

SHRI S. JAIPAL REDDY : Yes. Although there have been many schedule slippages and many instances of disproportionate and incomprehensible and inexplicable expenditure, I must say on balance that they have not done badly in the frontier areas of science like atomic energy, space, oceanography and so on.

But what is intriguing me is this. A nation, poor and backward as it is, has done so well in the frontier areas but it has miserably failed in less rarefied areas of science and technology. How does one explain this anomaly, this contradiction, this ambivalence?

In my view, if I am to explain the cause in one word, it is the policy of import which killed our scientific effort and crippled our own national industry. Our country is now being ruled and run by shallow managerial types and let us, therefore, judge this area by the management standards.

The CSIR in 1985-86 had cost the national exchequer Rs. 163 crores but the return on it is Rs. 3.22 crores.

I am not suggesting that industrial research should be assessed in quantitative terms, much less in commercial or monetary terms. But then let us look at the record of CSIR in terms of its technical achievements or technological achievements or scientific achievements. In the area of research for rural development this year report refers proudly to two things—(1) invention of fish rodes and the other is citronella distillation. This distillation of citronella has been known for a very long time, Citronella is a grass... (*Interruptions*)

They are the only two contributions. Fish rodes... (Interruptions). It is fish rodes... (Interruptions.)

SHRI SOMNATH CHATTERJEE : I know what is a fish.

SHRI S. JAIPAL REDDY : We know that more than 75% of our people live in rural areas and these people have been entirely unaffected by any effort we might have made in the area of industrial and scientific research. In regard to even normal areas, the so-called westernised or glamour areas, I may point out that in 1985-86 the CSIR has filed only 82 patents and out of these 82 patents, only one patent was recognised abroad or approved abroad. In other words, the remaining 81 patents were nothing more than an exercise in the process of what we call reinventing the wheel.

Now there has been a lot of talk of luring our talented scientists working abroad back to India...

MR. CHAIRMAN : Now please wind up.

SHRI S. JAIPAL REDDY : There are very few people...

SHRI SOMNATH CHATTERJEE : The opposition time is given to him.

SHRI S. JAIPAL REDDY : Thank you.

In this area CSIR has failed to make any headway. You have registered 386 scientists working abroad and of them only 79 cared to send their bio-data. It is not because that they are not attached to our country. They are very wary of coming back to India because they do not think that they can survive in this suffocating atmosphere of our scientific establishment.

The CSIR has been undertaking technology status studies. That means that it tries to point out what has been invented

elsewhere and let our scientists here know about the levels of technology and about what is called the state of our technology. But even in this we have not been able to keep ourselves abreast of the latest trends.

I will refer to two things that have been referred to in the report. For instance, lead acid batteries and things like low resistance polyolefin separators and gelelectrolytes have been known for more than 10 years now and this year our technology status studies refer to them. Then take for example, the diesel engines working for our wells in rural areas. We all know that they are really heavy, they consume so much of diesel and we have known for 10 years that in China there are diesel engines which in terms of weight are only one-third of our engines. I do not know why no initiative has been taken in these areas.

Now let me refer to our so-called inhouse R & D units in our industrial undertakings. For instance, in bakelitte hylam there is hardly any distinction drawn between testing and R & D. Did they come up with a single new process? Can the Minister throw light on this? There is another Company viz. Encardiorite which is a small Company. Even, according to the Report, I have drawn all these from the Report, it is shown that the R & D expenditure is of Rs. 46 lakhs. It is a small scale industry. So, I would like to know as to what is the proportion of expenditure incurred in relation to the turn out. In Indian industry, unfortunately, our experience has been that the expenditure on R & D has been nothing more than a subterfuge or a ruse to dodge tax.

Rackett-Colman, where one of our Ministers was employed and gained the reputation of being a great manager, manufactures nothing better than boot-polish and detol. (Interruptions)

SHRI S. JAIPAL REDDY : It has R & D expenditure of Rs. 30 lakhs. I would like

Shri S. Jaipal Reddy]

o know from the Minister whether our shoes are shining any better now than before.

(Interruptions)

SHRI SOMNATH CHATTERJEE :
You are having a costly shoe.

PROF. MADHU DANDAVATE
(Rajapur) : That is why his face is always facing his shoes.

SHRI S. JAIPAL REDDY : Metal Box Company has spent Rs. 154 lakhs. What is the contribution of this Company in the area of invention and discovery of new process? Glaxo, which we know is an international Company, has shown R & D expenditure of Rs. 300 lakhs for anything they get, a formulation they get from their parent company. Warner Hindustan—it is again a multinational company—has shown expenditure of Rs. 120 lakhs. I therefore suggest that a special Committee should inquire into the genuineness of the expenditure incurred on the in-house R & D units in our industrial units.

I will come to the import of technology Mr. M.R. Kurup, Director of SHAR, said that Japan imported one time, still imports only to improve on them and then to export. But we are importing as to generate more hunger, more demand and more appetite for more imports.

ISRO had developed 72 commercially viable procedures but somehow our establishment has not been able to get this process known to our own industries.

Dr. Abdus Salam, Pakistan's Nobel Laureate on an occasion, called for a consortium of borrowers who are developing nations. This is for strengthening our bargaining power as against blood sucking multinationals who are supposed to specialise in high technology. What technology are we really importing? It is nothing better than screw-driver technology.

In answer to a question in this Session, our Government revealed that 80 per cent of the components used in our country are imported.

(Interruptions)

The Minister has the right to contradict or confirm.

MR. CHAIRMAN : Please conclude. Do not waste your time.

SHRI S. JAIPAL REDDY : Yes, Sir. Now, I will come to automobile industry. Take our Maruti. We are importing components, which according to an answer to a question, cost 130 million dollars, only on components and spare parts, to be given to those who have already purchased Maruti cars. We have given licences to so many companies. I will give an example. In Hyderabad the Allwyn Company was allowed to enter into a collaboration with Nissan. In Delhi, the DCM was allowed to enter into a collaboration with Toyota. Practically the technology is the same. If two companies are allowed to import the same technology, how can they absorb it and how can they invest in R & D? It is only to achieve the objective of internal competition, meeting the needs of internal competition. We cannot, by this, achieve the larger economic imperative of economies of scale. Without achieving economies of scale, we can never promote self-reliance. I know, many capitalists inside the House and outside keep referring to South Korea. Do we know that Hyundai Company of South Korea has got its own design made for car? It has not imported it. They have achieved the economies of scale and are able to export.

Take Maruti. Our HMT was prepared to supply...

MR. CHAIRMAN : Please conclude. You have already taken more time.

SHRI S. JAIPAL REDDY : In conclusion—I am following my leader in his footsteps literally.

MR. CHAIRMAN : You do not follow the leader.

SHRI S. JAIPAL REDDY : It takes time for me to rise.

MR. CHAIRMAN : A good speaker is he who takes less time and says more.

SHRI S. JAIPAL REDDY : And also criticises.

MR. CHAIRMAN : You can criticise in this manner.

SHRI S. JAIPAL REDDY : Sir, you are taking away my time now.

Take the HBJ gas pipeline, I am not entering into the controversy of contracts. In September 1984 the Empowered Committee of 18 officials, of the rank of Secretary to the Government, took a decision that this project should never be allowed to be executed on turnkey basis, and yet it was done. Even in the case of projects which were not let out on turnkey basis, the element, approach, spirit and structure of self-reliance is being undermined, if not neglected..

Take the PDRI. . .

MR. CHAIRMAN : You have to conclude now.

SHRI S. JAIPAL REDDY : Last point, Sir.

MR. CHAIRMAN : Five or six times you have said so.

SHRI S. JAIPAL REDDY : Snam Progetti entered into a collaboration with PDRI to strengthen our self-reliance. . .

MR. CHAIRMAN : You have already taken more than 20 minutes. Is it fair on your part to continue like this? I am now calling the Minister.

SHRI S. JAIPAL REDDY : They are only trying to erode any process of self-reliance.

SHRI SHIVRAJ V. PATIL : Mr. Chairman, Sir, I would like to thank the House, the Presiding Officers, the members of the Business Advisory Committee and the Leader of the House for providing this opportunity to discuss the Demands for Grants of the scientific Departments. We are doing it for the first time in the Lok Sabha. This has provided the opportunity for the Government to hear the views of the representatives of the people in the House. This has also given the opportunity to dispel some doubts and misapprehensions in the minds of the Members. We are thankful to the hon. Members for making very good points and giving very good suggestions and for congratulating the scientific Departments and the scientists very handsomely. It will be our endeavour to reply to the points made by the Hon. Members here ; but I am afraid it may not be possible to respond to all the points that they have made. We propose to send replies to some of the relevant points made by the Hon. Members, which do not really belong to the realm of policies and bigger issues, in writing.

I am just intervening Sir. The Hon. Prime Minister is going to reply to the debate, I think, at 5 O'clock.

Sir, one of the points made related to the constitution of the Science Advisory Committee to the Prime Minister and the Science Adviser to the Prime Minister. Prof. Menon was the Chairman of the Science Advisory Committee. Now he advises, gives his views on day-to-day matters, on the implementation of the science policies to the Hon. Prime Minister.

The Science Advisory Committee to the Prime Minister is expected to formulate the long-term, the medium-term and the short-term plans and policies and express their views to the Hon. Prime Minister. After the views are expressed to the Hon. Prime Minister, they are considered in the Department or in the Ministry and wherever it is necessary to take these matters to the Cabinet, they do go to the Cabinet and the final decision is taken.

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What is done by the Committee is to give advice and express views. We do not find that there will be any difficulty in having a Committee as well as an adviser. When the advices are available, they can be compared and if there is consensus between the two advices available, well it becomes easier to act. If there is no consensus then the advices given can be examined more minutely and he can take appropriate decisions.

What has been done in selecting the Members to the Advisory Committee is to get the young scientists as well as the experienced scientists together. If there are young scientists and if they are included in the Advisory Committee, I think, it is not proper to take any objection to that. On the one hand it is expressed that young scientists should be given opportunities to contribute and on the other hand when the opportunities are given to the young scientists objection is raised that he is a young scientist. This blowing hot and cold at one and the same time is not really conducive. If we have taken two scientists. . .

SHRI S. JAIPAL REDDY : He is trying to put words into our mouth Sir. We never said that.

SHRI SHIVRAJ V. PATIL : It is not only you, I am not referring to your point alone, I have not referred to anybody's name at all.

Now, if two scientists who are working in some foreign companies have been included, let it be very clear to us that the secret information are not going to be handed over to them. They are going to consider the policy matters. They are going to advise on policy matters. They are not concerned with the implementation as such, administration of the scientific department as such. If they have come with the experience in science as well as with experience in administration and with experience in many other areas, I think it should be welcomed. There cannot be any serious complaints against them.

Many of the scientists who are today working in the scientific departments have studied abroad. Some of them have worked in some multi-national companies also. Simply because they have worked in multi-national companies if it is said that they should not be allowed to contribute it would be wrong. If they are Indian ; if their bonafides cannot be doubted ; if their antecedents can be checked properly and if there is nothing against them, there is nothing wrong in getting them in the Committee which is likely to give proper advice to the Government. Sir, I would not like to say anything more than this on this point.

SHRI S. JAIPAL REDDY : Why the Cabinet was relieved of the Committee's advice why the Prime Minister has been burdened ?

SHRI SHIVRAJ V. PATIL : Let us understand the working of the Government as such. Even if the matter has to go to the Cabinet it has to go through the Minister and here if the advice is given to the Prime Minister and if it has to go to the Cabinet it can go to the Cabinet also. Cabinet is not an entity to which advice can be directly sent. Ultimately it has to go through the Minister. This being the position, I think, there is nothing wrong in having the Advisor to the Prime Minister who gets the advice and makes that advice available, if necessary, to the Cabinet.

Sir, one of the point which was made by some Members is that the emphasis on the development of science and technology in India is not for the development of agriculture, development of irrigation and for the development of people living in the rural areas. This fact has to be very carefully examined by the House. If this were the position then production of foodgrains would not have gone up by 300 per cent. If this were the position the irrigation facilities would not have gone up again by 300 per cent. If this were the position we would not have eradicated small pox, plague and malaria. We would not have controlled TB and to some extent cancer.

SHRI S. JAIPAL REDDY : Is it done through our research? It is now a commonplace global knowledge. *(Interruptions)*

SHRI SHIVRAJ V. PATIL : If science and technology had not gone to the rural areas and the rural people; if we had not developed these things for our people then the average life-span of people in India would not have gone up from 24 years to 54 or 56 years.

There is some mis-conception on this point. People think that producing hybrid seeds is not a technology or constructing big dams is not a technology. Swaraj tractor is a tractor which is manufactured on the technology developed in CSIR. Hybrid seeds are produced in ICAR and agricultural universities. We are not talking of the ICAR or Agriculture Ministry's activities. We are talking about development of science and technology in India. Unfortunately what happens is when the Agriculture Ministry or Health Ministry come up for discussion then emphasis is on the administration and not on the scientific activities in those areas. When we are considering the Scientific Ministry and the entire gamut of the scientific activity in the country it has to be realised that science and technology does not mean only science and technology for industry.

15.29 hrs.

(SHRI SOMNATH RATH in the Chair)

Let us be very clear in our minds that science and technology mean science and technology for agriculture, science and technology for health, science and technology for power generation, science and technology for irrigation, science and technology for industry and all that. If you are concentrating only on one area, the view which you will have would be a very lop sided view and you will not be able to assess the real scientific development in the country. That is why I am trying to make this point. *(Interruptions)*

You were not present in this House when an hon. Member said that we have not done enough for agriculture, we have not done enough for irrigation. I am trying to say that is not correct.

Again, Sir, the position taken by some of the hon. Members is that electronics genetic, engineering and things like that are not really meant for agricultural developments. It is not correct. We are trying to get super-computer. Now, where is it going to be used? It is going to be used for agricultural meteorology and if it is an electronic gadget which is used in agricultural meteorology, then it is going to be used for farmers in our country. Sir, we are trying to develop the bio-technology. *(Interruptions)*

MR. CHAIRMAN : Please allow the hon. Minister to speak. Please don't intervene while he speaks.

SHRI SHIVRAJ V. PATIL : We are trying to develop bio-technology. Bio-technology is something which belongs to the frontier area of Science and Technology. Electronics is something which belongs to the frontier area of Science and Technology, and these two areas are not relevant only to the industry or to the equipments in the offices, but they are relevant to the activities in the fields also, they are relevant to the activities in the ocean also for fishing activities and they relevant to many other things. If our skills and talents of bio-technology develop, we will be able to develop the seeds which will be used in the lands which are saline, which will be used in the lands which are affected by drought condition, and it will be possible for us not to use the pesticides. We would be able to have these kinds of seeds. One of the important points which has come up before us is the fixation of nitrogen from atmosphere into soil in order to see that our expenditure on chemical fertiliser is reduced. This can be done with bio-technology and if you don't understand that, bio-technology is not going to be relevant to agriculture and if you think that bio-technology is going to be used

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only in industry or electronic is relevant only to industry and not agriculture or any other areas like that, then you don't have the correct perspective of the scientific development that is taking place in the country. Our approach today with respect to the rural development, agricultural development is...

SHRI S. JAIPAL REDDY : Sir, he has referred to the uses of electronics for rural India. So, let him cite some concrete instances so far as electronic development in India has been exclusively devoted to the consumer elites goods.

SHRI SHIVRAJ V. PATIL : My hon. friend has forgotten that we have sent satellites into outer space and satellite depend on electronics are there and through satellites we are informing the farmers about the practices of cultivation, we are informing the farmers about monsoon and people living in the rural areas about cyclonic conditions. We are going to have an Open University with the help of electronics, we are going to have a tissue culture. The tissue culture is something which belongs to the frontier area and if this tissue culture technology is useful in agriculture, let us not think that all these frontier areas are meant for the elites in the society. In fact, we want to make everybody in the society . . .

SHRI S. JAIPAL REDDY : What does tissue culture do with electronics ?

SHRI SHIVRAJ V. PATIL : I was not talking about tissue culture and electronics. I was talking about tissue culture with biotechnology. So, my submission is that it is wrong to consider that scientific development in our country is not relevant to the development in agriculture.

May I refer to the Science Policy Statement. What has been said in the Statement is this :

"It is this which for the first time in man's history has given to the common man in countries advanced in science

a standard of living and social and cultural amenities which were once confined to a very small privileged minority of the population. Science has led to the growth and diffusion of culture to the extent never possible before. It has not only radically altered the man's material involvement, but what is of still deeper significance is that it has provided new tools of thoughts and has extended man's potential horizon. It does influence even the basic value of life and even gives to the civilization a new vitality and new dimension."

This is the policy enunciated in the Science Policy Statement.

In the Technology Policy Statement what has been said ? There is a clause on priority. The Technology Policy says :

"Ministries concerned with large investment and production activities in areas such as food, health and energy would be provided with appropriate technological support through suitable structured S&T tools."

This goes to show that adoption of science and technology is conducive for democracy, it is conducive for production, it is conducive for doing justice to the people, it is conducive for distribution of the produce and it is conducive for education also. All these things are there. I would also like to quote from the Constitution. This is not something which is done today. In Article 48, it is stated :

"The State shall endeavour to organise agriculture and animal husbandry on modern and scientific lines and shall, in particular take steps for preserving and improving the breeds . . ."

This is the stand in the Constitution, this is the stand in the Technology Policy Statement and this is the stand in the Science Policy Statement,

I have explained you the development of science and technology in producing hybrid seeds, in constructing dams, in producing fertilisers, in producing pesticides, in producing agricultural tools and how the electronic and genetics and the frontier areas of science and technology are going to be relevant and useful for the development of agriculture in our country, for helping the people who are living in the rural areas and for helping those who need the help most. This was our approach and it is wrong to think that the science and technology which is being developed in the country is only meant for industry. It is not like this. It is meant for the all round development of the people and mostly those who need the help most. That is our approach. Let nobody in the House and outside have the apprehension that the scientific development and technological development in India is meant for the elite in the society. We want to see that everybody becomes an elite in the society. This is for helping the common man. On that count there should be no misapprehension.

A question was asked what our priorities were. Let us not have any doubt about the priorities that have been accepted by the Government of India since the beginning. Our first priority, even before we became independent, was education. The second priority was agriculture; the third priority was power generation; the fourth priority was irrigation and the fifth priority was industry. Now these are the priorities which have been fixed. Our plans are formulated on the basis of these priorities and scientific development which is a part and parcel of the entire development of the country, and which has to go parallel to what is mentioned in the Plan as also to follow this priority. This is exactly what has been mentioned in the 7th Plan. The basic principle on which the 7th Plan stands is food, employment and productivity.

These are our priorities and let nobody have any doubt as to what are the priorities regarding scientific development in this country. If we are having atomic

energy developed then that development is going to be useful for producing food, for providing employment by having more and more industries, for increasing productivity, etc. If we are going to have a satellite, it is going to help us in communications, in informatics and in education. All these are going to help us to produce more food, all these are going to help us generate more employment and all these things are going to increase our productivity.

AN HON. MEMBER : How does it help the common man ?

SHRI SHIVRAJ V. PATIL : I have explained it to you as to how the frontier areas of science and technology are going to be useful. The frontier areas of science and technology today are electronics, bio-technology, informatics, computerics, material sciences and such other technologies. I have explained to you as to how they are relevant for the poor people in the country. We would like to give our people the best that is available in the world and the best that is available in the country. If we give to our people second grade technology, their level of development is going to be second grade. If we are going to be tied down to the bullock cart alone for all the time, it is not going to be helpful.

In our Seventh Plan and especially in the Sixth Plan also, we have made it specifically clear that our approach to use sophisticated technology to help our people as well to use appropriate technology. But for all the time, we do not want ourselves to be tied down to appropriate technology. A time is going to come when we will have to give up the appropriate technology and we will adopt more sophisticated technology. If we adopt a more sophisticated technology, the time required for producing the goods by the people will be less, the cost will be bearable and the goods will be of good quality and competitive and in international markets. When all these things are there, we would not like to tie down our people coming from the rural areas to the second class technology. Why not give them first

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class technology? Why not give them frontier technology? Why should we tie ourselves down to technologies which are not being used even in the villages today? I am not saying that appropriate technology should not be developed. That is also our approach that until the time the sophisticated technology becomes available to all the people, we will certainly develop appropriate technology also. We would not be insisting only on appropriate technology alone. That is not going to help our country. Our population is large, our problems are huge and the time-frame in which these problems have to be solved is also very limited, and we would not be able to produce the results with outmoded and obsolete technologies.

In this respect what really is to be done is to bypass and reach the frontier areas and use that technology. That has been our approach and I do not think that you will be able to find fault with this kind of a policy and with this kind of an approach,

Let us now come to the aspects of indigenous technology and imported technology. A point has been made about the indigenous technology. I would like to say that our stand is to become self-reliant. We would like to become self-reliant. That does not mean self-sufficiency. It is going to be very difficult for India or for that matter for any other country to be self-sufficient. In the present day world, it is not going to be possible for any country to be self-sufficient. We are trying to be self-reliant in agriculture, in industry, in power in atomic energy, in nuclear technology, in space technology, in electronics, in bio-technology and in all other areas. But let it be understood that it is not possible for us to spend the money for developing the technologies in all the areas at one and the same time. The funds are not available and they are not going to be sufficient. That is why, if there are areas in which technologies are going to be available from the outside world, we would like to have those technologies in this country and use them. If there are areas in which technologies are not going to be available,

as has happened in the area of nuclear technology after sometime we relied upon ourselves and today you all were very kind to the scientists and to the Atomic Energy Department. You congratulated them very handsomely. And today the position is that we can produce our own fuel, we can produce our own heavy water, we can establish our own atomic reactor. We are self-reliant in that. Not only that, but we have gone to the fast breeder reactor technology and we would like to go beyond that also. Now that was the area in which the technology was not available and we relied upon ourselves, and if there are any area, in which this kind of position prevails, then we would like to rely on ourselves, to develop our own technology. There are going to be certain other areas also, which are just relevant to our country, and the technology which would be required in those areas will not be developed anywhere in the world. Nobody is going to develop the bullockcart anywhere in the world. One Member wanted to know whether we had done anything in the bullockcart. 'Yes' we have done so and new kind of bullockcarts are being used in all the sugar factories in Maharashtra. If anybody wants to go and see and purchase the bullockcart, those bullockcarts will be available. Only thing is the technology developed in the laboratories have to be used. Technologies which are developed should be used by the industry and production on a large scale has to be done so that the produce on the basis of the technology development becomes available to all the people in the country.

Now here in these areas also nobody is going to develop technology, we will rely upon ourselves. But there are certain other areas in which the time taken for the development of technology is going to be too long or too short also. When the time taken is too long or it is too short, if the rate of development of technology is too rapid or if the rate of obsolescence is also too high, then it becomes very difficult for us to cope up with the world technology development. In those areas—in that grey areas—we would like to get the technology, if it is available and we would like to adopt it, we would like to unpack

those technologies and then later on we would like to get only those technologies which are not available in the country. We would like to improve upon them. And in this fashion by developing ourselves, by getting the technology, by having the mix of the two, we would be able to develop the real self-reliance in the country. If you want to develop everything in the country, I think the stage of self-reliance will never reach, which will take long-long time when the world would have gone too ahead us. So, this is the approach which we have adopted as far as the indigenous development of the technology is concerned. Somebody said, how are we going to march into the 21st century. I am not taking every point because you would like to speak and the hon. Prime Minister would also be speaking about many other points.

PROF. MADHU DANDAVATE :
Leave something for him.

SHRI SHIVRAJ V. PATIL : Only one or two points which I would like to make are there. How do you want to march into the 21st Century, that was the question asked to us? Sir, I would like to make a submission and say that we want to march into the 21st Century with confidence and strength, on the basis of administrative reforms, on the basis of development of science and technology and on the basis of new educational policy which we are trying to develop. These are the areas which cover the material aspect of development as well as the mental aspect of our development.

Now, by having the administrative reforms, we would be using funds and the resources available in a proper manner. By developing the technologies, we will develop our capabilities to use the resources and by developing a sort of mental attitude which is in tune with the existing circumstances and the ethos which has developed in the world, we would be able to use all these things.

Sir, I would go one step forward and say that science and technology which is for

the development of resources in the land, resources in the ocean resources on the space will be developed and by going from the land to the ocean, the space which is unlimited and probably not bigger than the man's mind, we would be able to march into the 21st Century. This is the aim set by the Prime Minister and it has caught the imagination (*Interruptions*) If it has caught the imagination, and if it cannot be complained against, let us not make fun of it, and let us not reduce its importance. It will not be in the interests of the country as a whole.

The progress or march of science is like this : Science and technology has been marching from the gross to the subtle; from the non-living to the living; from the inert to the dynamic; from the force of physical conditions the non-living and living, to the psychological and cerebral existence; from the tangible to the intangible; from the visible to the invisible; from the perceptible to the non-perceptible; from the matter to the mind; (*Interruptions*) from the mind to the spirit—this is what is mentioned in our Technology Policy Statement which was drafted in 1958. This was stated, viz. that the key to national prosperity, apart from the spirit of the people lies, in the modern age, in the effective combination of the three factors, viz. technology, raw material and capital. This is our march. In this fashion, we would like to develop our technology.

While concluding my remarks, I would like to say that this is an occasion when we would like to remember, and pay our tribute to the memory of Pandit Jawaharlal Nehru. Even before we became independent, he spoke about the development of science and technology. It was he who laid the firm foundation for the development of science and technology in India. It was he who was popularized science and technology. It was he who created the scientific temper in India; and it was on this basis, on this foundation that the edifice of science and technology today stands.

We would like to remember Shrimati Indira Gandhi, our Prime Minister also,

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who helped the development of science and technology in all areas. Many of the new departments which are in existence today, were created in her regime. The Department of Space, the Department of Electronics, the Department of Ocean Development, the Department of Environment and the departments in the State Governments also, and the Councils under State Governments were also created in the time of her Premiership. It was she who gave all the help and assistance for the development of science and technology in the frontier areas. But for her support, and but for her vision, science and technology in India would not have been what it is today.

Today we have the foundation, we have the edifice, we are trying to have the pinnacle, the excellence. We would like to go to the highest point and we would like to develop that science and technology, and we would like to exchange that science and technology with the other countries also from whom we can take something, and to whom we can give something.

Sir, this has been our approach. In this fashion, we would like to go.

As far as CSIR is concerned, there are so many facts given, which are not correct. The percentage of utilization of technologies given to the NRDC by CSIR is 40%. An organization like this is existing in the United Kingdom. It has been able to get only 14% of the technologies utilized. I am not comparing these two. If there is something wrong, it should be our duty to see that that wrong is rectified, and something better is done. And we are trying to do that. The hon. Prime Minister has appointed a Committee for looking into the working of some organizations under the CSIR. (*Interruptions*) But there are facts given by the hon. Members which are not correct; and I would like just to correct those facts.

I would not like to make any more comments on the points made here. I thank the House for this opportunity of discussing this Ministry.

MR. CHAIRMAN : Since the hon. Prime Minister will reply at 4.45 p.m., I request the hon. Members to confine their speeches within five minutes.

Now Shri Bipin Pal Das.

SHRI BIPIN PAL DAS (Tezpur) : Much has been already said and much still remains to be said. But since you have given me only five minutes to speak, I really do not know what to say and what not to say. I shall make a distinction between science and technology, although both are inter-related and one depends on the other. Science is free and follows the independent course. All great scientists known to the world like Newton, Max Well, Darwin or Einstein, were not dictated by anybody; their only direction was discovery of truth, and therefore, they could pursue the path of truth. But discovery is different from invention on which lies the task of technology. Throughout human history, technology has always been dictated by State policy, but not science; science cannot be dictated; research in science can never be dictated; it is free; it follows the independent course, and therefore, we have got so many scientists who have discovered so many things, so many ideas, so many theories. But technology always follows the policy of the State; that means State policy dictates the path of technology.

Whether you want a bullockcart economy or computer economy or modern economy or medieval economy, it depends upon the State policy. Therefore, State policy must be framed accordingly. If we keep this distinction in mind between science and technology, only then we shall be able to follow one policy in the case of research in free science and another policy in the case of development of technology.

If you want to take this country to the 21st century, what does it really mean? According to government estimate, 37 per cent of our population are still today below the poverty line. How can you take the country to the 21st century without raising all these people above poverty line? I

do not know. How can you solve the problem of poverty? How can you solve this problem without controlling growth rate of population? The two are intimately interconnected. Therefore, to solve this gigantic problem and to take the whole nation to the 21st century, we have to formulate a balanced policy on technology which alone can take the country forward in order to be able to meet the challenges of the next century.

There are four different categories of technologies. By technology, we must not understand that technology means the steel plant technology or power plant technology or hydro power technology and so on. Four different kinds of technologies are in our country today at the present stage of development: (1) large scale; then medium scale; then small scale and the last one is the rural or I should say cottage scale. They also exist today.

Once Shrimati Indira Gandhi, our late Prime Minister said that in the whole country, India, the total load carried by bullockcart is higher than the total load carried by rail, motor transport, air transport and everything else. This must be kept in mind. We cannot wish away the bullockcart just like this; we want to substitute it; but you cannot wish it away just now, today, or tomorrow; it will take time. Therefore, let us try to improve the technology of bullockcart also as long as we shall not be able to replace it. So, only a balanced and well-thought out integrated policy covering all the four different categories can solve the problem of this country and take us to the 21st century. We missed the industrial revolution, Sir, because at that time we were under colonial rule. But we cannot afford to miss the technological revolution that is going on presently, and if we do not miss the new technological revolution, we shall be able to meet the challenge of the next century and therefore the need of the hour is a correct, realistic and balanced policy on technology.

I have some thing more to say but because you are insisting I will sit down.

[Translation]

SHRI VIRDHI CHANDER JAIN (Barmer): Mr. Chairman, Sir, first of all I pay homage to Shri Jawahar Lal Nehru, the builder of India who gave priority to science and technology. I also pay my homage to shri Homi Bhabha who made special achievements in the field of atomic energy. Had he been alive we would have made further strides in it. Therefore, I pay my homage to him also.

Our progress in atomic energy is commendable but we have to keep in mind that our fuel sources, energy sources like coal etc. will dwindle in about ten to fifteen years. The way we are consuming petrol, oil and gas, these too, it seems, will be exhausted within 15 to 20 years. Therefore, we have to make much advancement in the field of solar energy and atomic energy. If we make progress in this direction, we will be able to develop our country in this scientific age and also alleviate poverty in the country and will be able to stand on equal footing with other countries.

Sir, at the moment I want to draw your attention to the problem of my own constituency in Rajasthan. As I have very little time at my disposal, I would come direct to the first Unit of Kota Atomic Power Station. This Unit earlier remained closed for three years and was opened in February, 1985 but in May 1985 it was again closed. The reason told was that it—

[English]

—developed a new leak on the 20th of May 1985.

[Translation]

This has not so far been rectified. Therefore, I want to know whether this first Unit of Atomic Power Station will be rectified? If it is not going to be rectified then why are you taking so much trouble? Earlier when it was closed, the defect was rectified after three years and it started

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functioning. But after three months a new leak developed and the unit was closed. In this way it is a challenge to our scientists and it should be met properly. If you do not have full information about it, then the services of foreign scientists should be utilised. If these are certain non-resident Indian scientists, their services should be utilised so that we are able to get this first Unit rectified with their help.

The second Unit too remains out of order. Situation is always uncertain. Along with the first Unit, second Unit of the Atomic Power Station is also lying closed. There is drinking water crisis in my constituency in Rajasthan. Therefore, it has become imperative to start the second Unit, provided the first Unit cannot be rectified. The shortage of power in our area should be met by supplying power from Singrauli or Badarpur Central Power Station. We do not want to purchase power because we do not have the capacity. By duly compensating us for the power we had been getting from the atomic power Station, the shortage of electricity in our area should be removed.

The Central Government has in the Seventh Five Year Plan proposed to instal an additional Unit of Atomic Power Station. Steps are being taken in connection with setting up of the Unit but under this it will take 10 years to do so, i.e., the two Units will be set up in Atomic Power Station at Kota by 1995. We cannot wait that much. We want that our scientists should complete the schemes regarding both the Power Stations proposed in the Seventh Five Year Plan and relieve us of the power crisis.

Famine causes havoc in Rajasthan. If power crisis is reduced or removed altogether, it will be very advantageous to us.

Another thing I want to say is that we have made progress in the computer age. I had visited Jaisalmer, along with the then hon. Minister Shri Naval Kishore

Sharma, where Oil India Ltd. is working. ONGC had taken 12 months to complete seismic survey which Oil India has done in 2 months with the help of computers. It is a great achievement. We should try to do it at the earliest. If we are able to get gas and petrol after the seismic survey and drilling, this computerisation will prove to be very beneficial. With this type of system we can make progress and bring about development, and we can compete with other countries of the world. Even if we have to borrow this technology from abroad, we should go in for that.

Our communist friends oppose it and say that it will create unemployment problem. I am of the view that it will not create unemployment problem. Rather it will give employment to our people, and country will make progress.

We should try to utilise the services of our non-resident scientists and experts living abroad and with their help we should make further progress. The progress so far made in this direction is slow. Many applications have reached the Prime Minister. It has also been thought that a cell should be set up in this connection. But so far it has not been set up. The capabilities of the non-resident Indians have not been utilised. We must utilise them.

Lastly, I want to say that we have to make progress in the modern age and by winning the race of development and ensuring advancement in every field, we have to alleviate poverty so that the country may march forward.

With these words, I support the Demands presented here for the Ministry of Science and Technology.

[English]

SHRI P.M. SAYEED (Lakshadweep) :
Mr. Chairman, Sir, since the time is limited only to five minutes, I think I will have to straightway enter to my own State.

Science and Technology in our country and its effective functioning is visible in every sphere of life. If one considers the statistics, one realises how brilliant success story of our science and technology has been. In 1950 we had only 27 universities and now we have 156 universities. From 800 colleges just 35 years back, now we have 5,500 colleges in the country. We have as many as 236 national laboratories functioning on research and development programmes. As many as 7,000 in-house research units in both public and private sector are functioning. The determination of the Government to take the country to the 21st century is well marked by the figures for the science and technology from Sixth Plan to the Seventh Plan. It was Rs. 1,150 crores in the Sixth Plan and now it has been raised to Rs. 2,500 crores. Our leader Shri Rajiv Gandhi has given a clarion call to the nation to move to the 21st century. What does that call mean? It means nothing but to catch up the rest of the world in the matter of science and technology. But my only humble submission to him is that when the nation moves forward to the 21st century under his able leadership, he should ensure that the backward and neglected areas like Lakshadweep also go to the 21st century. From the budget papers before us we find that. . . (Interruption)

AN HON. MEMBER : Lakshadweep is considered as a forward area.

SHRI P.M. SAYEED : From the Budget papers, I find that Rs. 30 lakhs were provided for science and technology in Lakshadweep last year but as much as Rs. 20 lakhs have not been utilised. Only Rs. 10 lakhs, that is, only one-third have been spent. If this is the response of the bureaucracy to the clarion call given by our leader, I am afraid, the backward regions like Lakshadweep he may not be in a position to take such regions to 21st century. Therefore, proper climate for science and technology has to be created from superstition to rationality, from orthodoxy to modernism and from tradition to change. When I heard Mr. Reddy speaking, he was referring to some individual scientists. Here I want to record my appreciation for the splendid work that

is done by our scientists, and our Scientific Departments. We are proud to say that we have definitely equal standards of science and technology in our country as compared to any developed country.

Sir, here I have to sound a note of caution to place before the Government. Every day we see in the newspapers that scientists and technologists are going to foreign countries. There must be thousands of rupees spent on training the scientists.

AN HON. MEMBER : Lakhs.

SHRI P.M. SAYEED : I am told it runs into lakhs. Are we not entitled to have their services for the development of our country? Therefore, my humble plea is that there must be a moratorium on them. They should serve after getting qualified for at least 5 years. There must be some moratorium imposed on them by the Government to see that for each lakh spent on their training, they should spend one year each at least for the betterment of the country. This is my humble suggestion.

Again, Sir, there were allegations that merit is not considered for the selection of persons for the Director's posts in the Scientific Departments. If there is any substance in this, I humbly request the Government to look into such cases, because, sometime back it came in the newspapers regarding some suicide by a scientist. There should not be such kinds of grieve or grievance by our scientists. If at all there is any such case, kindly look into their grievances with sympathy and in time.

Now, coming to my own place, Lakshadweep, the land area of Lakshadweep is only 32 square kilometres. In this 32 square kilometres, may I tell you, if proper science and technology is utilised and applied to exploit the sea wealth, fishing wealth, mineral wealth and its energy wealth. I am told that 20% will be added to our national income. That has been estimated by experts. My area is also a backward area. We also face the acute problem of unemployment. More and

[Shri P.M. Sayeed]

more girls and boys are coming out from schools and colleges. The only possibility to rehabilitate them is to exploit this area fully. It is not merely 32 square kilometres. It has got economic zone of 7 lakhs square kilometres. That way, it is not the smallest territory, but it is the largest State of the country. That is my humble submission.

Then, Sir, I am told that Lakshadweep sea is the only sea in the world where Tuna fish die a natural death. We must increase the fish catch from 8,000 tonnes to 100,000 tonnes with proper application of science and technology.

Secondly, Energy resources, whether it is wind, wave, or ocean thermal, if properly utilised, can not only meet the entire energy needs of the island, but there will be surplus power generated, which can be utilised elsewhere. Similarly, much mineral wealth is there. If you take calcium sands—a renewable source—thousands of tonnes of calcium sands are being produced every year. These sands are available in inhabited island lagoons but the bulk of it is available in the submerged sand banks. Thousands of tonnes of these can be removed every day for manufacture of Cement and Solar Ash.

An expert team has already suggested that without affecting the ecological balance of this Island—of course that has to be taken maximum care of—we can exploit this calcium for producing cement as well as solar ash and other industrial products. Therefore, my humble submission to the Prime Minister is—he has already mentioned here on the floor of the House while giving an answer to my esteemed friend, Mr. Bhakta's question that the Islands are going to have some Islands Development Board for both Lakshadweep and Andamans. These two groups of Islands have different problems. Therefore, under this Islands Development Board, let there be a Lakshadweep Sea Development Authority in which scientists go in detail for the feasibility studies for exploiting these huge resources. With this, I

think the development of these Islands can definitely be taken care of and the unemployment problem in this area could be solved.

Let your love for Lakshadweep be translated into programme.

SHRI JAYANTI PATNAIK (Cuttack) :
Mr. Chairman, Sir, the crucial role of science and technology as an instrument of social and economic change has been taken from the time of Pandit Jawaharlal Nehru and Shrimati Indira Gandhi also. Under their guidance the country accepted the application of science and technology and its development as a major objective of planning.

Sir, now also our Prime Minister is very serious about this science and technology and wants to take our country to the 21st century with the scientific and technological development.

Sir, it is heartening to note that front line areas like Science and Technology, Space, Ocean Development, Atomic Energy and Electronics have received much emphasis in the Seventh Plan. Rapid development in these areas would be an indicator of the country's march into 21st century. These front line areas require heavy investment and developing countries like India cannot have so much resources to invest like the developed countries. Therefore, we have to be selective, we have to invest in optimising the facilities that we are having instead of going in for new facilities. But we have to select the field which is of immediate relevance to the welfare of our people. In a country like ours, public investment should bring about proximate results.

Sir, I want to speak about some of the National Laboratories. A large number of scientific institutions have been built in our country—the National Laboratories, the Regional Research Laboratories and the like. Unfortunately, the result is not commensurate with the investment made. So, one can hardly name one or two outstanding works of top international standard

produced by our National Laboratories. The National Laboratories merely discover new processes in the Laboratories and there is no system for conversion of these laboratory results into industrial application through pilot plants. Research and Development efforts are also very much lacking in the private sector in spite of some tax advantages. The time has come when we have to maximise Research and Development in the private sector as well as in public sector and ensure that results of the laboratory are translated into concrete action. I would suggest suitable modifications in the tax laws, setting up a separate foundation in the all-India financing institutions for this purpose.

Although considerable stress has been placed on the electronic industries, the electronic units are facing a lot of constraints. Component industries in particular are very hard-hit and more often than not, imported components are found much cheaper than indigenously manufactured components. I feel that some kind of protection is required for the domestic electronic industry.

Secondly, it is time we should change our approach in respect of the so-called screw-driver technology. Importing kits at high cost and merely assembling and selling it, is no solution. We have to emphasise on technology transfer and specially Indianisation. In this connection—since the Prime Minister is here—I want to draw the attention of our Prime Minister to what I want to mention. I want to mention about the software development. The Central Government have declared Bhubaneswar as a 'software' city where a dedicated earth station would be set up and a number of National Research Institutes (NRIs) would be promoted to set up their projects. Unfortunately, nothing much has happened so far, to this commitment. We read in the newspapers that these industries are again gravitating towards traditionally developed places like Bangalore, Delhi, Chandigarh, Bombay etc. Unless special efforts are made by the Central Government, how can backward States improve? In this connection, I would also like to

emphasise that a public sector manufacturing unit in the field of electronics should be located at Bhubaneswar since a large mother plant is required for development of ancillaries, as has happened at Hyderabad and Bangalore.

Now, I may come to atomic energy. During the last year, some break-through has been achieved in the field of atomic energy when our new atomic reactor became operational. Shortage of power has now become quite widespread and except a few fortunate States, heavy power cuts have become very common. We are having power crisis. So, in the Seventh plan, atomic power is supposed to supplement to complete power generation to a good extent. It was decided some time back that new atomic power station would be set up in different regions of the country. Orissa was under consideration for eastern region. Sir, some very good sites had been selected by the Central team for this purpose. We hope that the decision to locate this project in Orissa has to be taken quickly so as to help the State where rapid industrialisation has made the power situation critical.

I would like to say about the scientific temper for which our Prime Minister has been giving much emphasis, as his grandfather Pandit Jawaharlal Nehru used to. But we see that this temper should start from the school level and what we should see is that our scientists and technologists should speed up the developmental process in the diversified areas for improving rural environment and enhancing the quality of life of the masses. Sir, if the threats and promises of the 21st century are to be met with firmness and foresight, it should be necessary to evaluate the existing system of scientific and technical education so that the imbalance can be corrected and the system be adopted to become a viable instrument of our development process.

Much has been said about the rural development by the Minister of State of Science and Technology and I am glad that in the first year of the Seventh Plan, the application for rural development has been initiated. But I would say that we

[Shri Jayanti Patnaik]

should involve some voluntary agencies in this programme. Some voluntary agency groups have emerged dedicated to rural development through science and technology.

I am also glad that under this scheme of Science and Technology women are also aiming at improving their lives and this is also taken up in the Seventh Plan.

I congratulate the hon. Minister of State of Science and Technology and our Prime Minister because of the scientific development that has taken place in the country. The bio-gas plant and the solar chulhas are there. But we must see that the drudgery of the household work should be lessened so that the womenfolk can be more economically developed and they can take up some more economic activities so that the society will be a developed society.

With these words, I conclude.

THE PRIME MINISTER (SHRI RAJIV GANDHI) : Mr. Chairman, with your permission, may I digress for a minute and congratulate all the Members who are celebrating the New Year's day? All the best wishes for the New Year's Day.

This is the first time, I believe that we are actually discussing the Demands for Grants for the Science and Technology Departments.

DR. CHINTA MOHAN : And it had come in 1974.

SHRI RAJIV GANDHI : Well, the second time and after a very long time.

I would like to congratulate the House for taking this special interest in Science and Technology because Science and Technology today is crucial to our very development process.

The foundations of our scientific and technological development were laid many years ago by Panditji and a major thrust

was given to our science and technology by Indiraji. It is on this base that we are able today to use our science and technology to help the poorest people in our country.

Indian scientists have shown that they are up to the best in the world when it comes to developing technology and when it comes to taking our nation forward.

Perhaps it is worth spending a moment on just thinking what we mean by development because everybody talks "development, development must take place, we are very backward." What is development? What is the difference between a backward area and a non-developed country and a developed country?

I would beg to state that there is only one difference and that is the difference in technology that they use in their day to day lives. If a country use better technology, it is a developed country. If it use worse or older technology, you are a backward country and an under-developed country. Within our country, the same thing holds true. What is the difference between the most backward village in India and Delhi or Bombay or one of the major metros? It is the level and quantity of technology that is used in our daily lives, right from the very basics to the extravagance, the extras, that you get. But the difference is in the science and technology that you apply to your life and if we are to alter the standard of living in the rural areas, if you do take that as a definition, then by definition it means putting in more S & T into the rural areas, better technology for their improved living. Where is this going to come from and how will we target it?

Much has been said of appropriate technology or suitable technology. Lots of words have been used. But ultimately what we have to see is that the best possible technology that can be used for a particular task in the circumstances in which it is being used must be available if rapid development is to take place. In

some areas, like the hon. Minister has said, it could mean a better bullock-cart, but in other areas we see that the farmers are not really interested in a better bullock-cart; they want to jump; they want to go to a tractor. So, we have to see what they are willing to use and what they are capable of using and try and bring that in for them.

16.36 hrs.

[MR. DEPUTY SPEAKER *in the Chair*]

Our priority is basically removal of poverty in the rural areas, and the fundamental part of that has to be the development of our agriculture and downstream products from agriculture. We have seen that, with the most advanced technologies, the most advanced scientific developments being applied to agriculture and related industries, we have achieved a green revolution in the north-western States. This did not come about by ignoring science and technology. It came about by using science and technology at the right point and by using appropriate technology. It came about by using the most advanced and sophisticated technology, bio technology, genetic technology, technology for fertilisers, for electricity generation, and that is what has changed the picture of our rural areas. Basically what we mean by technology is to try and see how it can help us to produce more by using the same effort, increase productivity with better tools, with better equipment. And this is the task that our scientists have before them today. Our scientists have many achievements behind them. They have made us self-reliant in very basic areas. Whether it is in food, whether it is in certain strategic areas of defence, in space in nuclear sciences, they have shown that, where there is a challenge, they are up to that challenge and they have the capacity to lift India up when they are given that chance and when they are given full backing. They have responded admirably to this challenge. Whether we look at space, the Satellites that we have put up, the launching system that we have developed, they have been tremendous spin-offs for

every one. Today I go to the most backward area. There are many difficulties there. But the main demand that comes is that for a T.V. set, for a low-power T.V. Transmitter or a Relay Station. Hon. Members are aware of the type of questions that they are asked. This is what technology is doing to the lives of our people. It is giving them a better quality of life. Whether it is a question of broadcasting or tele-communication for better administration, for better productivity or a better assessment of markets for the farmer, whether it is better weather information to help the farmer sow his seeds or help the farmer protect his crops, it is all technology working for the poorest people in our country.

Another example I would like to give because many times when we talk of advanced technology our mind immediately goes to large industries, to fancy offices and to very sophisticated laboratories. But what comes out of these sophisticated laboratories ultimately goes into sometimes the most mundane objects which help the poorest people. A case in point is the India Mark II Hand Pump. It seems like a very simple device but today we are exporting it in thousands to corners of the world. Inside it is perhaps one of the most advanced technology mechanism and materials that are used. That is why it does not fail. That is why it does not break. That is why it survives. So this is the type of development that we need high technology applied in a simple manner to everyday objects that are needed in our rural areas.

Another example is that of a root nodule bacteria that has been developed by our scientists which can be tailored to specific crops, which can be tailored to specific regions, climates and environments. It puts approximately 40 kg. of nitrogen every year into the soil and into the plant without any extra expense or very very cheaply. Again it is very advanced high technology used at a very basic level and this is what is going to change the life of the average person in India. The tissue culture whether it is for better crops,

[Shri Rajiv Gandhi]

better trees, faster growing trees, whether it is for vaccines, immunisation, etc. again it is very high technology but applied to everyone in the country. Disaster warning systems that would not be possible without satellites. Can one today imagine what it was like along the East Coast of Andhra five years or ten years ago when there was no disaster warning system? The damage that was done. Today it is behind us. We do not even think about it. But again it is the most advanced technology giving protection to the poorest people on that belt.

I can go on with a very long list whether it is electronic testing of soil, whether it is testing of quantity of humidity in the soil, whether testing grain for quality to help the farmer get the correct price but perhaps the most striking is our programme to clean the Ganga. There can be no question about the purity of the Ganga but it still requires the most modern science and technology to identify what sort of pollutants are going into the Ganga and it requires the most modern technology to remove those pollutants and once more clean the water.

So it is a question of putting the best technology that we have for use of our average person not for the elite. The elite will get it anyway. But our thrust must be for the rural areas. Here we come up against resistance. Resistance because there is a feeling that technology will bring about unemployment. If we think back of the time of the Industrial Revolution the same resistance was felt then when it was said that machines coming in would bring about tremendous unemployment. But it did not happen. Employment shifted but increased. Wealth generation increased. The average person who was poor got wealthy. He lives a better life. Today the reason for parts of our country being still very backward is that the Industrial Revolution has not yet arrived there. Mechanisation has not arrived there. We must today not only bring that mechanisation but we must help them take a jump ahead and bring them into the world as it is today instead of trying to bring

them into yesterday. And anyone who thinks otherwise has a vested interest in keeping those areas backward, in keeping our people backward and dependent on an ideology, on a theory, on a political system and we must do everything possible to bring about this change so that our people are not left backward and they have the most modern tools and machines available for their own better living.

Perhaps, one of the key factors has to be that of developing a scientific temper like Panditji had said, so often without that scientific temper, it cannot be possible and a scientific temper is not necessarily only for the scientists, the scientific temper must come into the average Indian if he is to start developing. It can be brought about by the media, it can be brought about by education and we must do everything that we can to bring this about.

Once we have a scientific temper, basically it will remove the fear of the unknown which keeps people back, which keeps people from moving ahead and using the tools that are available to them. The scientific temper will help develop an inquisitive spirit where people will ask questions where people will ask why does milk turn sour why cannot it be kept in some way so that in the villages they don't need refrigeration. I do not know why their plough, does not plough better under certain circumstances. It is when we start thinking in this manner that a scientific temper will develop and we ourselves will start improving the tools that we have got and that we live with. Today you go to a village, you go to a backward area, you see that there has been no improvement. In my area, I see someones have bullock-carts which still have not got steel tyres on the wheels. They start with the wheel that is that big, slowly it wears down, when it is that big, they change the wheel and go back to a big wheel again. They have not even thought that they can put something on the wheel to prevent its wear. So, it is this type of thinking which must be brought into the rural areas and that could be the basis of our scientific temper. Our scientists, like I have said,

have developed tremendous capability. They have developed reputation which is not limited by our boundaries, but goes right across the world and they have developed this reputation working in parallel, with perhaps the best brains in the world. The brains our scientists are second to none. We have developed a very large infrastructure of scientists. We have developed very sound linkages among various fields. But still all is not as well as it should be, like some Members have pointed out we have not got the maximum out of our investment and we have been thinking about this. As the hon. Minister of State has said, we have analysed where we have done extremely well, for example, our space programme is second to none.

In Atomic Energy, we have risen to great heights. In Bio-technology in certain fields in Defence we are equal to the best in the world. So, obviously, there are areas where it has worked extremely well, at the same time there are other areas where we have done miserably. So, we have done something right, obviously something wrong, and we must try and identify what was right and what was correct, and try and use that in other areas where we want similar development. Like some Members have pointed out, it cannot be possible for a country like India to develop across the board in every single field. We just do not have the resources or the capability to do that, but we must choose those areas which we feel are vital and we must give a very strong push in those areas so that in a certain number of years we are as advanced as anybody else.

One of the problems of a developing country is that it is much easier to buy technology which is available in the market than to start re-inventing the same technology, rediscovering what others have already discovered. But, of course, if you go that route, then you will always be left with second rate technology, because that is what others are going to give you. Now when a country comes to the development stage, that India is in today, we must re-think on this. Are we going to settle for second-rate technology for ever? Or, is there going to be stage

when we will say: "No, we want to shift over to frontline technology"? We cannot do that in every field. It is not possible. But we must identify certain areas where we will give this thrust. We have identified a number of such areas starting with those that affect the life of the average person in the villages, in the more backward or depressed areas. We are identifying these as missions; missions because we thought that the success of some of these programmes, that I mentioned earlier, was because one person was in command, he had full authority to run that exercise, he had full funding, he had the backing of all the institutions that he needed. When we talk of the mission, we intend to draw it up in that same broad concept. The missions that we have in mind are going to be—we have decided on the number of missions already. Five have already been established. Drinking water—it might sound simple that we will just be digging holes in the ground and pulling out water, but out of all these five missions, the maximum amount of scientific development and technological development will go into drinking water, and the highest technology out of any of these missions will be used to give drinking water specially in those areas where there is a tremendous shortage of drinking water. Another mission will be that of oil seeds, vaccination for children.

SHRI THAMPAN THOMAS : The water level is going down and down further.

SHRI RAJIV GANDHI : That is why we need high technology. If you had a little bit of scientific temper, you would not ask that question.

Vaccination for the health of our children and eradication of illiteracy. Again, we will need a very high technology to transmit the message. What is education? Education is communicating a message to the younger generation, to the children. We must use the best methods that are available to be able to do this. Telecommunication will be another mission.

[Shri Rajiv Gandhi]

We are dividing these thrusts into basically three areas. The first and perhaps the most important and the most difficult will be the missions, because they will stretch from the laboratory. Oil seeds for example will mean development of the oil seeds in a genetic laboratory, transferring that into the extension work of actually getting it to the farmer, explaining to the farmer how he is going to use it turning his produce into oil, marketing the oil and getting it to the consumer, and keeping the costs down right across that exercise. So, these are extremely complicated exercises which will cut across many Ministers, many State Governments and if they are to succeed, we would need really good men at the top, who would be able to really cut through all this red tape and deliver the results that are required if this country has to survive.

On the other hand, we will have, what we are going to call, the thrust areas which will be slightly more specific. We might identify a particular line of development which we need for strategic use, may be nitrogen devices, may be lasers, may be something like that. And again, we will give every thing that is required for development. The third areas will be what scientists refer to as 'blue sky research' which means basic or fundamental research. Here of course, we cannot ask for results in the same way that we ask for in the other two areas. But the basic thrust will be on some sort of accountability in all these three areas accountability in terms of scientific development in a certain time, accountability in terms of the funds that have been spent in terms of scientific development. And we will have certain cut off points. We will decide that at this point we will not go further along this road and we will take a different track. Perhaps we will decide that that is enough we cannot go further at all, and we shut that area down. But unless we do that, we cannot get results for the money and investment that we are putting in.

Our attempt will also be to try and shift the management of our other

scientific projects on to a similar type of management. But because they will be much more general, the attention that we will pay the financing that they will get will not be of the same level as the missions and thrust areas and basic research that we will be pushing forward.

Another point which has been talked about many times in the House is that of the brain drain or as I prefer to call it, 'the brain bank'. We are looking at this from the starting point and that is the education policy. When the Minister for Human Resources Development will put this in front of the House during this Session, we will see that an attempt has been made to look at the teaching of science, because we have to start building scientific temper of a much broader base of our scientific pyramid. Today, we have achieved great heights, but the base is very narrow. We have very few people who go straight to the top. The average person does not have a scientific thinking of any sort. We must broaden that base, because when that base really becomes a broad based pyramid, then we will really be able to draw upon the best that is available in the rural areas. And to do this, we must build it into our education system.

At the same time, if we are to stop this brain drain of too many scientists and technologists leaving the country, we have to tailor the subjects that we are teaching to the needs for our development. If we teach every one very esoteric subjects which do not relate to the development in India, of course they will leave the country, they will go away and they will look for jobs else where. So we need in the exercise of the New Education Policy to first try and assess what will be our need of agricultural scientists, what will be our need of technologists, of engineers, of other specialized training and then try to fit that back into the Education Policy.

17.00 hrs.

When that tailoring is done—and it is not something that we even attempt to say we will do in the next 4 or 5 years ; it is

only a very modest beginning that we can make ; but—unless this sort of training is done effectively, we will not be able to use the best resources in terms of brain power in our country, for our development purposes.

Again, training does not end, qualification does not end by getting a degree from an IIT or from a University. It is a continuing process ; and if a scientist or a technologist is to be useful to us, he can be useful to us at every level of training, at every level of experience. We might want to use the young men who are 25 years old, and who have just got a degree. At the same time, we might prefer to send some of them out. Let them work in very advanced fields with top scientists in the world, and we might want to bring them back five years or ten years later.

So, this sort of exercise has to be a continuing process an updating exercise ; it has to relate to our development process. It must relate to our education process as well. Our attempt will be to try and do this. We have taken a number of steps to attract such people back to the country ; and there has been a movement back. We will continue this. We must. . .

SHRI S. JAIPAL REDDY : What are those steps ?

SHRI RAJIV GANDHI : We have got a long list. I can give you the list if you like. I do not think I want to waste the time of the House on this now.

AN HON. MEMBER : How many have come back ?

SHRI RAJIV GANDHI : We will give you the list. I do not have it just now, because I did not think you wanted to go down to the mundane. I would like to keep it a higher plane.

SHRI V. KISHORE CHANDRA S. DEO : The question of going to reality is not mundane.

SHRI S. JAIPAL REDDY : We did not hope to listen to a second Discovery of India.

SHRI RAJIV GANDHI : To what ? *(Interruption)* Well, if you have not discovered it once, you better discover it a second time. Perhaps you can widen your horizon. . .

SHRI S. JAIPAL REDDY : We were rooted in the soil. We never had to discover.

SHRI RAJIV GANDHI : Perhaps you can widen your horizon from the boundaries of Andhra Pradesh *(Interruption)*

However, achievements in the past are there for everyone to see, right across the world. Certain areas, like I said earlier—Space, Agriculture, Defence and in the nuclear fields, we have done extremely well, and have shown that India is equal to the best.

We have shown that when India accepts a challenge, when our technologists accept a challenge, they meet that challenge and they deliver the goods. Today, we are looking for your support, to give them the backing that they need, to achieve similar results in many other fields. Once more we would like to show that India can do it, and will do it.

Lastly, in conclusion I would like to thank all the participants for their ideas, their thoughts, and for their suggestions ; and most of all, for the unanimous support that these Grants have got right across the House.

Where science and technology is concerned, we must keep in mind that nothing but the best will do for the country ; and we must work towards that end. With your support, I believe we will be able to do it.

With that, I would request all the Members that have moved Cut Motions to withdraw them, and to vote the Demands.

MR. DEPUTY SPEAKER : I shall now put all the cut motions moved to the Demands for Grants relating to the Ministry of Science and Technology and the Department of Atomic Energy to vote together, unless Shri K. Ramachandra Reddy desires that any of his cut motions may be put separately.

All the cut motions were put and negatived.

MR. DEPUTY SPEAKER : There are no cut motions to the Demands for Grants relating to the Departments of Electronics, Ocean Development and Space.

I shall now put the Demands for Grants relating to the Ministry of Science and Technology, Departments of Atomic Energy, Electronics, Ocean Development and Space to vote :

The question is :

“That the respective sums not exceeding the amounts on Revenue Account and Capital Account shown

in the fourth column of the Order Paper be granted to the President out of the Consolidated Fund of India to complete the sums necessary to defray the charges that will come in course of payment during the year ending 31st day of March, 1987 in respect of the heads of Demands entered in the second column thereof against—

- (1) Demand Nos. 80 to 83 relating to the Ministry of Science and Technology ;
- (2) Demand Nos. 99 to 101 relating to the Department of Atomic Energy ;
- (3) Demand No. 102 relating to the Department of Electronics ;
- (4) Demand No. 103 relating to the Department of Ocean Development ; and
- (5) Demand No. 104 relating to the Department of Space.”

The motion was adopted.

Demands for Grants (General) 1986-87 in respect of the Ministry of Science and Technology, Departments of Atomic Energy, Electronics, Ocean Development and space voted by the House

No. of Demand	Name of Demand	Amount of Demand for grant an account voted by the House on 13th March 1986	Amount of Demand for Grant voted by Lok Sabha
1	2	3	4
MINISTRY OF SCIENCE AND TECHNOLOGY			
80.	Department of Science and Technology	13,83,77,000	69,18,83,000
81.	Survey of India	7,71,67,000	38,58,33,000
82.	Meteorology	4,55,51,000	22,77,52,000
83.	Department of Scientific and Industrial Research	26,75,33,000	1,33,76,67,000
99.	DEPARTMENT OF ATOMIC ENERGY	24,97,000	1,24,83,000
100.	Department of Atomic Energy Atomic Energy Research, Development and Industrial Projects	36,35,75,000	1,81,78,72,000
101.	Nuclear Power Schemes	70,00,00,000	1,60,78,17,000
102.	DEPARTMENT OF ELECTRONICS	9,77,33,000	48,86,67,000
103.	Department of Electronics DEPARTMENT OF OCEAN DEVELOPMENT	4,42,25,000	22,41,24,000
104.	Department of Ocean Development DEPARTMENT OF SPACE	22,67,72,000	1,13,43,61,000
	Department of Space	32,96,13,000	96,43,15,000

(vii) Ministry of Home Affairs

MR. DEPUTY SPEAKER : The House will now take up discussion and voting on Demand Nos. 47 to 56A relating to the Ministry of Home Affairs for which 6 hours have been allotted.

Hon. members present in the House whose cut motions to the Demands for Grants have been circulated may, if they desire to move their cut motions, send slips to the Table within 15 minutes indicating the serial numbers of the cut motions they would like to move. Those cut motions only will be treated as moved.

A list showing the serial numbers of cut motions treated as moved will be put up on the Notice Board shortly. In case any member finds any discrepancy in the

list he may kindly bring it to the notice of the Officer at the Table without delay.

MR. DEPUTY SPEAKER : motion moved :

"That the respective sums not exceeding the amounts on Revenue Account and Capital Account shown in the Fourth column of the Order Paper be granted to the President out of the Consolidated Fund of India to complete the sums necessary to defray the charges that will come in course of payment during the year ending 31st day of March, 1987 in respect of the heads of Demands entered in the second column thereof against Demand Nos. 47 to 56A relating to the Ministry of Home Affairs."

Demands for Grants (General) 1986-87 in respect of the Ministry of Home Affairs submitted to the vote of the House

No. of Demand	Name of Demand	Amount of Demand for Grant on account voted by the House on 13th March, 1986	Amount of Demand for Grant to be submitted to the vote of the House
1	2	3	4
MINISTRY OF HOME AFFAIRS			
47.	Ministry of Home Affairs	1,31,79,000	6,58,92,000
48.	Cabinet	1,49,91,000	7,49,52,000
49.	Police	1,10,60,16,000	5,53,00,81,000
50.	Other Administrative and General Services	53,20,90,000	2,66,04,48,000
51.	Rehabilitation	9,85,37,000	49,26,83,000
52.	Other Expenditure of the Ministry of Home Affairs	45,97,14,000	2,29,85,70,000
53.	Delhi	78,91,60,000	3,94,58,02,000
54.	Andaman and Nicobar Islands	11,76,34,000	58,81,68,000
55.	Dadra and Nagar Haveli	1,67,22,000	8,36,12,000
56.	Lakshadweep	3,47,26,000	17,36,32,000
56—A	Chandigarh	12,69,77,000	25,39,55,000
		7,01,50,000	35,07,50,000
		8,77,37,000	43,86,87,000
		1,80,60,000	9,02,98,000
		35,72,32,000	1,78,61,60,000
		67,14,36,000	3,35,71,82,000
		12,35,82,000	61,79,08,000
		93,83,000	4,69,15,000
		60,35,000	3,01,76,000
		5,45,44,000	10,90,87,000

[Translation]

SHRI V. TULSIRAM (Nagarkurnool) : Mr. Deputy Speaker, Sir, today we are discussing the Demands of the Home Ministry. We got independence some 38 years back. I come from the rural area. Thousands of *Girijans* in the rural areas have still not got their freedom. Even today, the landlords and the big people have control over them. If their orders are obeyed, it is alright but if someone disobeys them, he is tortured. This is known to everyone and even the House is aware of it.

SHRI GIRDHARI LAI VYAS : Are you aware of this or not ?

SHRI V. TULSIRAM : I am aware of this. That is why I am speaking here. Presently, Home Affairs portfolio is with Shri Narsimha Rao. He is a very experienced person. I am hopeful that during his tenure, some way will be found out for those harassed and tortured Harijans who live in rural areas. But upto what time this portfolio remains with him is uncertain. It is also a matter of concern today that no one knows as to which portfolio will be taken from someone and which portfolio will be given to another. If some Minister formulates a scheme or a law to help someone, he is half way in the process when his Ministry is taken away from him. Some other Minister takes over from him. Not only this, even the Chief Ministers in the States are changed and you are all aware as to what sort of things happen.

Regarding reservation, at present there are 25 per cent Harijans and *Girijans* in India but what is the percentage of reservation for them ? You can see, be it UPSC, High Court or any other Department. How much percentage has been fixed for them ? Leave aside other Departments, you can see in your Cabinet. How many Scheduled Caste and Scheduled Tribe Ministers are there in your Cabinet ? How many should be there ? If they cannot get justice in your own Cabinet what can happen to them in other places that you all can guess very well. Is there

any Governor who belongs to Scheduled Caste or Scheduled Tribe ? Is there any Chief Minister, Chief Justice of a High Court or any big officer in any Department who belongs to Scheduled Caste or Scheduled Tribe ? You are just doing an eyewash. You just tell that this much reservation is there.

17.12 hrs.

[SHRI ZAINUL BASHER in the Chair]

But how many persons get these reserved vacancies ? See in the different Departments, how many persons are getting justice in this regard. Even if any vacancy occurs in any Department, candidates are called three to four times but no candidate is found suitable for the post thus the post is not filled and the reason shown is non-availability of the candidate. This process is repeated three to four times and thus the vacancy is transferred to the general category. This way the reserved post becomes a general post. This type of malpractice is going on in our country. How can then the people of the Scheduled Tribes and the Scheduled Castes expect to get justice.

What is the condition in the villages ? Last time, I had gone to a village called Singapur Raswal. I had gone there to inquire about a murder. Some people from opposition groups had gone there. There I came to know that the victim had applied for a gun license and had tried his level best to get the same. But he could not get it whereas others were delivered gun licenses at homes. Thereafter he was murdered. After about a week five to six others were also murdered. A pregnant woman was also killed. How was she killed ? The nozzle of the gun was placed at that part of her body I cannot mention here and the trigger was pressed. Her abdomen burst and the child and the woman both died. I have visited that place myself. So what type of law and order you have ? What have you done so far to protect these people ? What is going on there presently ? You

make many laws but how many of them are being actually implemented? Who bothers about their implementation? Our Ministers and officers should see to it but they do not. This is a matter to shame. I had visited Singapur Raswal but did any Minister also go there? Mr. Dandavate went on behalf of the Opposition and other members also were sent. I went there in the first instance and made necessary inquiries. The Chief Minister and other Ministers also went afterwards. They visited that place two days later than my visit. Big leaders and big people always speak of the welfare of Harijan and Gitijan but such type of incidents reveal to us the actual shape of things.

Before independence, whether the people of our country, during their flight against Britishers, indulged in some sort of such things they went underground. In turn, the Britishers used to bring the parents and families of such people to the police station, make them sit there for long and torture, them so that the underground revolutionaries could surface. The English made such laws to torture our people and you are still sticking to those laws. If somebody runs away after committing a crime or a murder or a dacoity, the police catches hold of his family and bring that to the police station and make them sit there. Previously, the English were using these rules to torture our patriots but today even those very law exist. No change whatsoever has been brought about in these laws. What is this all? Upto what time will you go on following these rules? Does not the police know? I would like to know? They know each and everything but they do not apprehend them.(Interruptions).....They take money. God knows what happens. I am not in a position to tell. Sitting at the police station they are aware of everything and can easily tell as to who is hiding where. They know everything but their behaviour is not good. Even they could not save our late Prime Minister Mrs. Indira Gandhi. They had the entire report but even then they could not do anything. She was a distinguished leader of our country and was also acknowledged a leader by the world at large. But the police could not save even her. They

know everything but they do not do anything-

I give you an example. One gentleman came to me with a complaint of being cheated. Somebody had played a trick on him by placing a currency note on a bundle of paper, tying it with a rubber band and giving that to him. I spoke to Shri Chauhan who is Chief Minister of Maharashtra at present and also met the Police Commissioner twice but to no avail. The man who was made to hand over the bundle is President of Old Delhi Citizen Committee Congress (I).....(Interruption).... A currency note on the top and a bundle of paper underneath.(Interruptions).

If there is some violence somewhere and we give a notice, it is said, even Mr. Speaker says that it is a State subject. If we give notice on a dacoity, then Mr. Speaker observes that it is a State subject. The hon. Minister also considers it a State subject. If disturbance takes place, that is also a State subject. If there is a Hindu-Muslim riot, then that is also a State subject. Bank robbery too is a State subject. I want to know what are the Central subject. If all these subject are State subjects then what are your subjects.....(Interruptions)

[English]

PROF. MADHU DANDAVATE : Law and order in Parliament House.

[Translation]

SHRI V. TULSIRAM : The attitude of I.A.S. Officers towards Chief Minister in States is not proper. In Andhra Pradesh, Chief Minister Shri Rama Rao is very strict with them. If they indulge in some bungling there, they are suspended and removed. But then they obtain overriding orders from the Centre. They are under the Central Government. He is helpless here. Where there is an Opposition Government, the Governor and other officers are those persons in whom the Centre has confidence. And where there

[Shri V. Tulsiram]

is a Congress (I) Government, everything seems to be smooth there. Murders and chaos are there, the life as such is topsyturvy but no action is taken. Every power is concentrated in the hands of the Centre and the States do not enjoy any power. It is all right, you do it but you should use your powers properly. You don't do it properly. I totally fail to understand the policy that if there is something good it becomes a Central subject and if it is not good then it becomes a State subject. You put us off. What sort of Justice is this?(Interruption)

PROF. MADHU DANDAVATE : And that too West Bengal.....(Interruption)

SHRI V. TULSIRAM : What is this? How can it be? Please let me know. Shri P.V. Narsimha Rao is laughing..... (Interruption).....You are very senior you might have.....(Interruption)

THE MINISTER OF HUMAN RESOURCE DEVELOPMENT AND HOME AFFAIRS (SHRI P.V. NARASIMHA RAO) : The people behind you are laughing.

THE MINISTER OF STATE IN THE DEPARTMENT OF INTERNAL SECURITY (SHRI ARUN NEHRU) : People at your sides are also laughing.

PROF. MADHU DANDAVATE : You were pained but now you are laughing. (Interruption)

SHRI V. TULSIRAM ; I had every hope that you will do the right as you are much experienced. Nobody knows how long you will retain this portfolio. Nobody knows when they will take it from you. You may embark upon something and something else may turn out—nobody knows this.

Railway Board is called a white elephant but I say that Home Ministry itself is a white elephant. As I have mentioned

earlier, every subject becomes a State subject but when there is a dispute at the border, then army is deployed there and when it is some other sort of problem then it becomes a State subject. They spend money lavishly here. I have cited an example that in the States, police officers have engaged policemen on their household work. I do not say that they should not have. Even many Ministers have them at their bungalows. Mr. Jagdish Tytler lives in the bungalow adjacent to mine. I saw him twice when he used to be an M.P., but after he became a Minister, I have not seen him at all.

KUMARI MAMATA BANERJEE : Have you not seen him in the House?

SHRI V. TULSIRAM : I do see him in the House. So do I see you. I see you shouting in the House but what to do. We try to see him there but we don't see him. Of course we see around 25 policemen daily there to protect the walls of his bungalow.....(Interruptions)

[English]

AN HON. MINISTER : He has no time to waste.

[Translation]

SHRI V. TULSIRAM : Why should the walls require police protection. Why is the Railway Board being called a white elephant when the Home Ministry itself is no better. What is the necessity of posting a police force there? I am not saying that the Minister should not be given protection, or that the officers and the Members of the Parliament should be deprived of this facility. Everyone must be protected but what is the need of protecting the walls and the trees..... (Interruption).....I would like to challenge this. You may kindly visit the area and see what is happening there. I can take you along with me in my car and show you that the Police is engaged in protecting the walls over there.....(Interruption)..... Why are you shouting. When truth is being spoken, at least we should think over it. To yell at every statement seems to

have become a duty. In the morning, when the Hon. Prime Minister was present, some Members were shouting. At least now, the Prime Minister is not present and even if he was, he would not have made you a minister or a chairman of some committee. Hence, why do you shout ?

MR. CHAIRMAN : Please come to your point.

SHRI V. TULSIRAM : The Home Ministry is responsible for this kind of system. If this is the state of affairs in independent India, then how is it going to help? What I want to say is that the Harijans are not getting proper benefits of the Reservation facility, and this is due to the way your administration functions. I have no animosity against Shri Tytler and I have never had any differences with him, but whatever I have noticed, I have said. I could not help expressing whatever I see right next to me. And I cannot say if the same is being repeated elsewhere. The way the Central Government is functioning is completely wrong. Hence, I would specially request Shri P.V. Narsimha Rao to pay attention to this. I have the pleasure of knowing him quite well. We belonged to the same State. But now he has been elected from a different place. Regardless from where he is elected, he is our national leader and I consider him my leader.

PROF. MADHU DANDAVATE : He is from our State.

SHRI V. TULSIRAM : But only temporarily. He represents our place permanently. Shri Rajiv Gandhi is also a great youth leader and we hope that he would function properly. If his style of functioning is right; then the Opposition would support him, but if it is not, so, then we would oppose him always.

With these words, I now conclude.

SHRI BRAHMA DUTT (Tehri Garhwal): Mr. Chairman, Sir, I would like to point out one difficulty in the very beginning. During the discussion on the

Demands for Grants of the Home Ministry last year, we had noticed that the allocations for Harijans and Schedule Tribes were made by Home Ministry. This year it is no longer so but I need not emphasise this point further as the person who spoke before me has mentioned it. I would like to submit only this much, that the current year being the second year of the Seventh Five Year Plan, the allocation for the Schedule Castes and the Schedule Tribes has been 50 per cent more than last year. Instead of Rs. 600 crores, the Harijans have been allocated Rs. 930 crores and similarly, Rs. 765 crores have been earmarked for the Schedule Tribes instead of Rs. 485 crores. But I would like to draw your particular attention to the fact that we must be strict in implementing the programmes and only those who are totally committed towards this cause, should be entrusted with this responsibility. It is also essential because as long as there is discrimination on economic grounds in the country and there is regional imbalance and inequality between different people and areas, we will not be able to strengthen the integrity of the country. At present there are about eight and a half lakh families which are carrying on shifting-cultivation. There are five thousand villages in our forests, which cannot be termed as villages, as their revenue has not been fixed. Action must be taken on this matter.

The primary aim of the Home Ministry is to promote the unity and integrity of the country. I would say that it is the special responsibility of the present Eighth Lok Sabha. The Prime Minister during the tenure of the Lok Sabha earlier to this was assassinated. That was not just an attempt to kill a single individual, but an attempt to dismember our nation. But this is a great country where our leaders have created a machinery in the shape of the Congress, given the country its democratic form and developed and strengthened a system, so that this country could never break up into fragments. To achieve this the provision for Lok Sabha was made.

How can we bring about unity in this country? Perhaps some people in the country are dissatisfied. I think that

[Shri Brahma Dutt]

merely talking about various religions and ideals would not work. We have to find a platform on which the entire country can be united. Our economic development programmes towards which our nation-builders were committed can probably serve the purpose. The nation's economic programmes have a bearing on every caste, religion, region and community. It is such a programme as can end all inequalities between different categories of people and regions.

If our internal security, law and order situation and democratic set up is in jeopardy, it is always in the name of caste, religion, and region. It is very unfortunate that in our country, we are so liberal that one can form political parties on the basis of caste, region and religion. When such political parties were formed, they affected our ruling party as well. I shall not say that we were not affected by it. When regional, racial and communal parties were formed it did affect us. We bowed down to those forces which should not have intimidated us. We ought to have countered these elements. I believe that our economic programmes should be the basis of the functioning of our party. Our base must be our economic programmes. I can even say that the political parties which do not follow a socio-economic programme, have no right to exist in this country because they are the cause of disintegration. I am not apposed to democracy, but in the presence of such political organisations, a country cannot develop.

I wish to congratulate you for allocating Rs. 40 crores for the development of the border areas. This is a right step and I have also mentioned it before. Our armed forces are capable of protecting us from outside aggression. Our country was attacked thrice, but we have given them a befitting reply. The international situation is also not conducive to the world peace. But if anyone attacks us, he will be defeated. When I talk of border areas, I do not mean the frontiers of Uttar Pradesh alone. Our border areas are there in the States of Uttar Pradesh, Rajasthan, Punjab, Kashmir, Kutch and the entire Himalayan belt which stretches upto Assam. Rs. 40

crores are too less for the development of the whole area. I want that the allocation should be increased because roads have to be built, facilities for drinking water and electricity have to be provided and people have to feel contented.

During the Second World War, we learnt the lesson that battles cannot be fought only by army. Our experiences in Europe, Russia and France taught us that if the World War had not turned into a People's War, if international resistance had not been created, if the citizens of those countries had not felt that their democracy was in danger, their land was in danger, their interest was in danger, then perhaps their defence forces would have been defeated. There has a movement in the people at large and that movement changed into a resistance army.

More funds should be allocated for the development of these areas. Generally tribals dominate these border areas. They live in the midst of the jungles, because of geographical situation of these areas. The forest protection act is a hurdle in their development, which should be relaxed. I want that we should plant trees to the maximum possible limit. But drinking water, roads and electricity have to be provided to the villages. I fail to understand the logic of putting Energy Advisory Board and Energy Development Fund under the Home Ministry. They should be under the Energy Ministry. There is a great need to carry on research in the field of energy—it may be in any form like coal, oil, electricity and solar power. But the approach should be an integrated one. We have a huge and unlimited source in our country; these sources are inexhaustible. We should utilize snows of Himalayas in order to generate hydro-electric power so that we can check floods and procure more water for irrigation. It has been very much neglected so far and as a result of that, hydro-electric ratio has been diminishing. We should utilize rivers and nullahs in a more effective way for this purpose. I feel that we will have to attach these departments to the Ministry of Energy.

I want to congratulate the Government as far as freedom-fighters are concerned. Their facilities have been increased, their monthly pensions have been increased, they are also given free rail pass. But there is a difficulty before them, because previously there was a rule that the persons who had an income of more than Rs. 5,000, they would not get Central pension. This rule was changed afterwards but even then those people could not get pensions. They are small in number. Even recovery is being made from them. It is very painful. There are very few such persons and even their number is gradually exhausting. I feel that the Home Ministry should look into this matter. There are one thousand of such applications lying for grant of pension.

We also have a main task of rehabilitating the refugees who have migrated from Bangladesh. Kumari Mamata Banerjee will speak about them afterwards. There are seven big Tibetan settlements in my district. We should also take care of them. There are two types of people among Tibetan refugees; we have experienced it in Dehradun. One group belongs to Taiwan and the other to Dalai Lama, who are pro-Indian. We will have to keep close watch an anti-India group. We faced this problem in Dehradun and this is why we have to do something to expel them. There is no question of rehabilitating them. Now people are migrating from Sri Lanka. We should not let India to be an orphanage. We will have to tell the Sri Lankan Government that we cannot tolerate it any more. Our people who want to come here should be allowed to come. Today, there are criminals in our country, who have better arms than those with the police. The Eighth Finance Commission has given lot of benefits to the States in the form of imparting training to police, providing better arms, constructing new police stations, making arrangements for mess facilities and strengthening the police force. The Home Ministry should see whether this fund is being used properly or not and also the list of the people who have been given arms during the last five years. I remember that from 1977 to 1980, licenses for 140 carbines

were given in a district. Carbines are not used for self defence. I was leader of the Opposition in the Assembly during that period. I read out the list. Similarly the present Punjab problem also can be solved. A thorough search should be carried out for the arms piled up in Gurudwaras. We should have a check on the borders, specially those with Pakistan and Bangladesh so that people could not enter India from these borders. But police alone cannot handle this work. Therefore, I make a plea for the development of our border areas. We have dacoit-infested areas like Itawa, Mainpuri, Bhind and Murena. You cannot liquidate them by merely establishing police stations and sending police to encounter them. For this purpose, we will have to chalk out programmes for development and engage people in constructive programmes as these programmes have the potentiality of attracting people.

When Mrs. Gandhi was killed on 31st October, people deeply felt that they had to save the country and not allow it to disintegrate. Thus people rose above casteism, regionalism and communalism and constituted this Lok Sabha and the Government to maintain the unity of the country. Our people have this capacity if we show them the right path, and we are capable of it. For this purpose, we have social welfare and economic welfare programmes through which we can benefit our countrymen and thus strengthen our internal security.

One thing more. Our Civil Defence System is just nominal. God forbidding, if somebody attacks us, this system is not capable of defending the country. There are wardens who need training. We have a big organisation of Home Guards but they do not get sufficient facilities and training; we should enhance these. Whenever there are riots, be it communal or other type of riots, we all join to criticise police for it. But we should not do like this as it demoralises them. Why do we not form a peace force in which ex-servicemen should be employed for a period of 5 to 10 years and imparted a different type of training to maintain peace, and serve the people. They should not be

[Shri Brahma Dutt]

attached with the police force. You may send them wherever they are needed. They may win people's faith. But the overall responsibility devolves on the political parties. Maybe, it may be ruling party. We should make it clear that if someone of us gives shelter to the political criminals... (Interruptions)... then he cannot escape from its repercussions merely being a politician. Another thing is this that we should not indulge in violence in any case, be it a matter of trade union or something else. Unless and until we leave this tendency the danger to our internal security will be there. Sometimes the people who have this tendency fall victim to it. Whosoever has this tendency may become a victim of it. Even we are not an exception to it. I am not of the view that end justifies the means.

(Interruptions)

I am of the view that even good results by wrong means are nullified in the long run. Therefore, political parties also should not resort to such means. A code of conduct should be drawn for all the parties.

One thing more. Only those political parties have their future in this country which intend to take the country to the heights of progress by winning people's faith on the basis of their principles and programmes. Otherwise parties are formed and they vanish. But it is clear that our present leadership is in capable hands. Our Home Ministry is also doing well. Pandit Nehru and Mrs. Gandhi have presented us such a system which is quite capable of maintaining the internal security and national unity. Today, it is our duty to remove wrong tendencies, be it in the name of communalism, casteism, religion or region. Social workers have greater responsibility than the politicians in this regard. This is a great task and it is very unfortunate that even today our country is divided horizontally not vertically. Every community, caste section, region have poor people. We have to fight poverty and backwardness and to strengthen our national unity we will have to take along everybody. It is a great social task. In

our country, it was to be done earlier in the social field. As we were a subject nation earlier, we had engaged ourselves in political field only. It is the need of the hour that we should change our social attitude. Our Prime Minister [has mentioned about the scientific outlook. I would like to call it rational outlook and we have to jointly bring about this rational outlook.

[English]

SHRI K. RAMACHANDRA REDDY :
I beg to move :—

“That the demand under the head Ministry of Home Affairs be reduced by Rs. 100.”

[Need to check infiltration of extremists from Pakistan into India.] (1)

“That the demand under the head Ministry of Home Affairs be reduced by Rs. 100.”

[Need to check infiltration from Bangladesh into Assam, Tripura, Manipur and Mizoram.] (2)

“That the demand under the head Police be reduced by Rs. 100.”

[Need to simplify the procedure for trial of police personnel responsible for the death of undertrial prisoners in police custody.] (37)

“That the demand under the head Police be reduced by Rs. 100.”

[Need to condemn the utter failure of intelligence set-up in the country.] (38)

“That the demand under the head Police be reduced by Rs. 100.”

[Callous indifference of police resulting in escape of prisoners.] (39)

“That the demand under the head Police be reduced by Rs. 100.”

[Need to reform police and infuse humane qualities in them.] (40)

"That the demand under the head Police be reduced by Rs. 100."

[Need for more funds for purchase of more arms, ammunition, vehicles, clothing etc, for new battalions.] (41)

"That the demand under the head Police be reduced by Rs. 100."

[Need to increase recruitment of police personnel at the lower level.] (42)

"That the demand under the head Police be reduced by Rs. 100."

[Need to initiate steps for improving efficiency in police forces.] (43)

SHRI V. SOBHANADREESWARA
RAO : I beg to move :—

"That the demand under the head Ministry of Home Affairs be reduced by Rs. 100."

[Need to seal the borders adjoining Pakistan to prevent Pakistan trained terrorists coming into our country.] (5)

SHRI GADADHRA SAHA : I beg to move :—

"That the demand under the head Ministry of Home Affairs be reduced by Rs. 100."

[Need to remove social and economic irregularities, disparities and imbalances in the country's socio-economic and cultural system and to solve basic problem of national integration and socio-political unrest and the problems relating to Scheduled Castes and Scheduled Tribes.] (54)

"That the demand under the head Cabinet be reduced by Rs. 100."

[Need for a separate full-fledged Ministry at the Centre for rehabilitation work.] (55)

"That the demand under the head Rehabilitation be reduced to Re. 1."

[Failure of Government in not providing sufficient funds to West Bengal for the rehabilitation of the displaced persons from East Pakistan.] (56)

"That the demand under the head Rehabilitation be reduced by Rs. 100."

[Need to implement the decision to regularise squatters' colonies in West Bengal.] (57)

"That the demand under the head Rehabilitation be reduced by Rs. 100."

[Need to implement the Schemes of Housing for displaced persons and squatters' in West Bengal by getting them loans from Nationalised Banks at differential rate of interest.] (58)

"That the demand under the head Rehabilitation be reduced by Rs. 100."

[Need to implement the recommendations of R.R. Committee under the Chairmanship of Samar Mukherjee, ex-M.P. for solution of refugees' problem in West Bengal.] (59)

KUMARI MAMATA BANERJEE
(Jadavpur) : Mr. Chairman, Sir...
(Interruptions) Whenever I rise to support the Demands of any Ministry, they are disturbing me. OK, please carry on and I will carry on.

I rise to support the Demands for Grants of the Ministry of Home Affairs. This is a very important demand as this demand covers so many subjects. But I am not going to touch every point, but I will try to concentrate my speech on 3 or 4 important subjects.

Firstly I would like to say something about the refugee problem of Bengal. We have got 16 seats from West Bengal for Congress (I). Out of these 16, myself Shri Bholanath Sen, Shri Asutosh Law and Prof. M.R. Halder come from the refugee belt. And my constituency is totally a refugee belt.

[Kumari Mamta Banerji]

In West Bengal refugee problem is a great problem. It is now a burning issue in my State. I have already met the former Home Minister, Mr. S. B. Chavan so many times and I met the Prime Minister also to urge upon the Government to realise this problem. Our Law Minister, Mr. Ashok Sen has received a letter from the former Home Minister, Mr. S. B. Chavan on 21st August 1985 wherein he has said :

“The land in rural areas is given on free-hold basis, whereas in urban areas it is given on lease-hold basis for a period of 99 years on a nominal ground rent of Re. 1/- per one hundred square yards or a fraction thereof per annum. These conditions are in accordance with the general policy followed by the Government of India in other areas also. Moreover, this will protect the displaced persons from the temptation of selling the land on account of increasing value of land in urban areas so that they do not become displaced again. However Paschim Banga Udbastu Sanghati, a society registered under the Societies Registration Act, 1965 has filed a writ petition in the High Court of Calcutta against the conferment of right and title through lease deed on displaced persons in urban areas. The matter is now *sub judice*.”

Here I would like to say something as I have already read the budget speech of our Chief Minister, Mr. Jyoti Basu. He has stated in his Budget speech :

“It is sad to have to talk—nearly four decades after partition—of the burden of rehabilitating the large number of refugees who had to cross over to West Bengal as a consequence of this event. . . . The Central Government has simply wished away the problem and disclaims all responsibility. In this situation we have been trying to do our best with the limited resources at our disposal.”

I have here some books also. I have got this book from the West Bengal Government “Some urgent issues and Problems relating to West Bengal” but I do not see the refugee problem here. But I am surprised to say that whenever any election comes our Chief Minister politically—you should be surprised to know—only politically to damage our Party gives a letter to our Prime Minister demanding free-hold rights and then the Prime Minister is giving a reply that this is the present Government policy—not to change the policy because we have already given freehold rights in rural areas and in urban areas we have given leasehold rights.” Then what the Chief Minister is doing is that he distributes pamphlets to the voters like a question and answer, “that the Central Government is not helping us and so we are not giving a pure life to the West Bengal people” Actually this matter is now *sub judice*. But you will be surprised to know that the West Bengal Government are forcefully distributing now 99-year lease-deeds and there are so many conditions in the lease-deeds that nobody can accept such lease-deeds. I do not know how the West Bengal Chief Minister is giving these lease deeds without any permission from the court. I would like to say this. The people’s demand is for freehold right, This is the common interest of the Bengali people. Yesterday I had a programme in Calcutta, but I cancelled it because I wanted to take part in this debate. Last year also I took part in this. This is our demand that freehold right should be given. This is our demand that freehold right should be given to urban areas also.

After Partition, refugees were allotted plots by Government for their settlement either in Baidanama Colonies or in government colonies in rural and urban areas. The refugees who got rehabilitation in Baidanama Colonies, irrespective of rural and urban areas, were given title of the land by leading them over the ‘Deeds’ by the Government. The major portion of Baidanama Colonies are within the jurisdiction of urban areas. Now I like to state that, if refugees rehabilitated within urban areas in Baidanama Colonies have not disposed of their plots in spite of high

value or price of the lands they have been rehabilitated in, why the refugees settled in urban areas in government colonies can sell out their rehabilitated plots. It would be most amazing to note that rehabilitated persons have already constructed their buildings when they got settlement within 1960. Buildings have been made at their own cost; only price of land has been paid by the Government. So after a lapse of 30 years or so, the rehabilitated persons are going to be deprived of their rights of ownership of building properties due to conditional lease deeds which is against all justice.

I have come to know from press reports on 22nd February that the hon. Minister for Internal Security, Shri Arun Nehru, will be visiting West Bengal. We are very grateful to him because he has given a statement that he will be coming to West Bengal to see all the problems of the refugees. I would request the hon. Minister to come and set up a high-official Committee in West Bengal to look after all these things in West Bengal. The day before yesterday the West Bengal Government have passed their budget, the refugee budget, and they have said: "We have already allocated Rs. 10 crores, but our demand is Rs. 750 crores; and the Central Government is not giving us even a single pie". I will tell you one thing. (*Interruptions*) These are not my comments. These are the comments of the Chief Minister, West Bengal. . . Shri Saifuddin Chowdhary (Katwa): You do not support? Kumari Mamata Banerjee: I am not going to embarrass our Chief Minister, because our State is physically handicapped and also economically handicapped. We know that we have a federal set-up in our country. The Central Government is like mother and the State Government are like her children. It is the duty of the mother to look after her children, especially the weak children who cannot walk, who cannot move, properly; the weak children are totally physically handicapped. That is the position of West Bengal. Therefore, this is my demand to you: whenever you sanction some money, please see where the money is going. . .

Dr. PHULRENU GUHA (Contal): The West Bengal Government did not use the money given in the Sixth Plan; they returned Rs. 1200 crores.

KUMARI MAMATA BANERJEE: Everybody knows that they returned Rs. 1200 crores.

I heard the speech of Mr. Somnath Chatterjee on electoral reforms. He has said—and I quote:

"We have no Treasurer; we have a system of maintaining accounts."

The CPM Party is claiming that they are progressive people and that they are the great friends of refugees. But when the Central Government has given so much of money, the money has gone into the pockets of the CPM people. The CPM people are getting the benefits. The other people, common people, do not get even one paise for colonies. They are creating new colonies every day, but they are helping only the big people. But actually, Sir, for poor refugees who came from East Pakistan and who have lost everything they are not doing anything for them. The State Government is misusing these refugees but Central Government should do something for the refugees. This is my humble request and demand. Please give free-hold rights to the urban area people also. There should not be any discrimination between rural and urban area people. In West Bengal the State Government is giving 99 years lease-deed. There are so many discriminations. This should be stopped immediately.

Sir, as per Central Government decision the Refugee Department was wound up in 1974. I request the Central Government to revive that Rehabilitation Department without leaving the same to the State Government since it is a concurrent subject. Secondly, review the whole problem afresh and send a high-power team to West Bengal to look into these things. Thirdly, instruct State Government to stop giving effect to lease-deeds pending review because it is a matter of subjudice.

[Kumari Mamata Banerji]

Next I would like to say something regarding freedom fighters' pension. Under the Swatantrata Samman pension scheme which was introduced with effect from 15th August, 1972 and was liberalised from 1st August 1980 this pension has been sanctioned to 1,37,249 freedom fighters and their dependants which includes 5061 sanctions issued in 1985 and 82,360 applications are pending final decision mainly for want of State verification reports. In my State there is a Ganesh Ghosh Committee which is now clearing these things but you will be surprised to know so many freedom fighters' cases are now pending. Why? Because these people are not CPI (M) people. How CPI (M) people know who are the freedom fighters because they are born after 1962. So, Sir, I would request you to change this committee. *(Interruptions)* Your Jyoti Basu was also a Congressman. Now, they have changed their policy. We know why they have changed their policy. Day before yesterday our hon-Prime Minister and our great leader, Shri Rajiv Gandhi, rightly pointed out in the debate when Shri Amal Dutta said that Chinese are not doing any harm to India. Their picture is now clear. *(Interruption)* He is speaking like the Foreign Minister of China. They have forgotten that India is their motherland. We should first regard our mother and then our maternal uncle. But they are now believing the Chinese ideology and forgetting India's ideology. We know what it is. We know Tata, Birla and Goenka are now their friends. You are not going forward but going backward. The Congress under the leadership of Rajiv Gandhi is going forward. We are looking forward and we are moving forward to 21st century. So, Sir, our Government should do something in favour of these poor people also.

Sir, I would also like to say something regarding West Bengal and Tripura. Even IAS, IPS, District Magistrates and Sub-Divisional Officers are being totally manipulated by a party.

MR. CHAIRMAN : You may continue your speech tomorrow.

KUMARI MAMATA BANERJEE †

Please give me two minutes more and I will finish. I have to leave today for Calcutta. Even then some people belonging to IAS, IPS, District Magistrate, etc. cadres are working in favour of them. They should be neutral and the Central Government should pass strictures so that they will work neutrally. Sir, in our State do you know what is the condition prevailing now? Last month I was beaten in the Police Station. Mr. Halder was beaten by the CPM people and the car of the Union Minister of State in the Ministry of Planning was attacked and damaged by the CPM people. In our State, so many people are killed everyday. Even in the banking sector which is an important sector—it is a public sector of the Government—the management and the officers are now compelled to bring to near collapse the banking system in the States. The law and order situation in the State is out of control. I know in Tripura State, the same situation is created. If you can't do anything, we will not get protection from the State Government either. In our State, goondaism and hooliganism are increasing day by day. I would therefore request the Central Government to look into this matter and keep a watch over the grim situation in West Bengal and Tripura. The anti-social elements are increasing everyday in these two States. In Tripura, the TNV people are killing the innocent people every day. Only the youth Congress people are protecting the people in Tripura. I would request the hon. Minister and the Government to do something for the sake of the people in these two States. We are insecure in our own State. I am leaving today for Calcutta. I do not know day-after-tomorrow whether I would live or not because I do not know the law and order situation in our State. So, it is the duty and the dignity of this august House to protect us and protect the people of the country.

18.2 hrs.

The Lok Sabha then adjourned till Eleven of the Clock on Friday, April 11, 1986/ Chaitra 21, 1908 (Saka).