

(c) of my question. The comparable information given by him in respect of South-East Asian countries is only upto 1985. May I know when did he receive this piece of information ?

SHRI BRAHMA DUTT : I shall make available the information sought by the Hon. Member.

[English]

SHRI ANANDA GAJAPATHI RAJU : We find that inflation is already two-digit or more. It is true that the Government is financing non-plan expenditure from increasing the administered prices and deficit financing ? If so, what are the steps that are going to be taken to see that this non-plan expenditure is not met out of these funds and is met out of revenue expenditure ?

SHRI BRAHMA DUTT : Sir, first of all, I beg to differ from the Hon. Member. The inflation is not two digits. The second thing is, I again repeat, that the Prime Minister has made a definite statement about the attempt to contain the budgetary deficit also and to decrease the gap between the international trade. So, these two steps, I think, will be enough. Then, thirdly, we have to strengthen our Public Distribution System. This will help us and increase in production and productivity that will also keep the inflation in check.

[Translation]

SHRI RAMASHRAY PRASAD SINGH : Mr. Speaker, Sir, the Hon. Minister has stated in his reply that the rate of inflation has not increased, but we find that the retail prices at the shops including those at the Government shops have risen sharply. The items in respect of which the retail prices have risen sharply include milk, ghee, soap, etc. which are items of daily use. May I know the reasons therefor ?

SHRI BRAHMA DUTT : This is true that the prices of consumer items have risen sharply.

SHRI SAIFUDDIN CHOWDHARY : It is not correct.

SHRI BRAHMA DUTT : This is particularly true of your State. In the rest of the States, it is generally true. I agree that there are seasonal variations in respect of some of the items, but I have already told about the action taken by Government in regard to overall control of prices while replying to the question of the Hon. Lady Member.

[English]

SHRI S. JAIPAL REDDY : The Minister has not got over yesterday's hang-over.

MR. SPEAKER : The boot seems to be rather on the other leg...Next question. Shri Satyendra Narain Sinha . (Interruption).

Launching of satellites

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*490. **SHRI SATYENDRA NARAYAN SINHA :**
PROF. NARAIN CHAND PARASHAR :

Will the **PRIME MINISTER** be pleased to state :

(a) whether India's launching capability is far below requirement of its programme to place in Orbit various satellites like INSAT and IRS;

(b) whether the delay in ASLV launch has further widened this gap; and

(c) if so, the steps taken to develop rockets capable of launching large satellites like INSAT and IRS ?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI K. R. NARAYANAN) : (a) to (c). A statement is given below.

Statement

(a) The Indian Launch Vehicle capability is not yet fully in phase with the requirements of IRS and INSAT class satellites. For the launch of IRS series a launch

vehicle called Polar Satellite Launch Vehicle (PSLV) is already under development.

(b) No, Sir.

(c) The launch vehicle capability in the country is being enhanced in a phased manner. With the successful launch of Satellite Launch Vehicle-3 (SLV-3) in 1980, capability to launch 50 kg class of satellites was achieved. The Augmented Satellite Launch Vehicle (ASLV) which is an improved version of SLV-3, will enhance the capability to launch 150 kg class of satellites in low earth orbit. ASLV is designed with many special features with complex technologies required for operational launch vehicles such as closed loop guidance, strapon booster systems etc. A number of these features have been flight tested during the 24 March 1987 flight, though the overall mission was not successful. Work on the Polar Satellite Launch Vehicle (PSLV) project is in progress targetted for a launch during 1989-90. This will establish the capability to launch IRS class of satellites (1000 kg class). Studies are underway to further improve launch capability for geosynchronous missions of INSAT class with Geosynchronous Satellite Launch Vehicle (GSLV). Some of the R and D activities of critical elements required for GSLV are also initiated. The activities of the Department are being pursued in a planned manner as outlined broadly in the profile documents for the decades 1970-80 and 1980-90. When these activities fructify the launches of IRS and INSAT class satellites can be sustained with Indian Launch Vehicles.

SHRI SATYENDRA NARAYAN SINHA : Mr. Speaker, Sir, in answer to whether the delay in the ASLV launch has further widened this gap, the answer is 'no'. The Augmented Satellite Launch Vehicle has failed. I would like to know from the Hon. Minister whether this failure has not caused, is not going to cause, delay in the time-frame and if so, what is the time-lag that is going to occur because of this.

SHRI K. R. NARAYANAN : The first flight was certainly a failure in certain respects. But we have learnt quite a lot...

SHRI AMAL DATTA : Why in certain respects? It is so in all respects.

SHRI K. R. NARAYANAN : Not in all respects. May I explain to you?

(Interruptions)

MR. SPEAKER : Please restrain yourself...

(Interruptions)

SHRI K. R. NARAYANAN : Let me first of all answer the question which the Hon. Member has asked.

MR. SPEAKER : You should not yield. He is an habitual....

AN HON. MEMBER : Offender?

(Interruptions)

SHRI BHAGWAT JHA AZAD : Failure also is a step to success.

MR. SPEAKER : All failures are steps to success.

(Interruptions)

SHRI K. R. NARAYANAN : We have said that there will not be delay in the programme because the second developmental flight is scheduled to take place within a year. This will take place within the scheduled time and we expect, we hope, that would be a success in which case there will not be any delay in the fulfilment of the programme.

SHRI SATYENDRA NARAYAN SINHA : I wish what the Minister is saying comes true. I wish him success. Now the Department has planned development of a Polar Satellite Launch Vehicle and also simultaneously increased the activities of the Research and Development Department for geosynchronous missions, so that we may be able to send our Satellites in the orbit. From the statement it is not clear whether we will be able to proceed on the schedule that has been fixed. I would like to know from the Government whether it is not a fact that in other countries the defence scientists and the

civilian scientists, space scientists, pool their resources together and are working in harmony with each other. May I know from the Government whether he would consider pooling of defence scientists and civilian scientists, space scientists, in order to help quicken the pace of development of rocketry and to avoid duplicating of research activities?

SHRI K. R. NARAYANAN : Our space programme is a peaceful development programme and that is why it is within the civilian sector. Of course, we will take care that the generality of knowledge generated in the country in whatever sector it is naturally imbibed by all scientists and by all those who are working in the field.

About the failure itself, may I say that even the most tested rockets and satellites have failed. There is a very impressive list; even those which have been tested and tried many times have failed—impressive in the sense how many Soviet tests, how many Chinese tests, how many U.S. tests, have failed, the flight attempts have failed. But the important thing is that, in this test, certain aspects of the technology have been validated. For example, a new technology introduced in the ASLV was the strap-on booster technology. That aspect of it worked perfectly. Therefore, a new technology was tried, tested and validated, which is a great gain. Then the command system, the telemetric command, the information system, worked almost perfectly. Therefore...

MR. SPEAKER : Do not get disturbed by this rumbling sound.

SHRI S. JAIPAL REDDY : That is by way of approbation.

SHRI K. R. NARAYANAN : That is traditionally a sound of satisfaction in India. It is a good augury.

Apart from this, we have our ground stations. The launch complex has been tried and tested. The ground stations have been tested. The tracking stations have also successfully functioned during this period, and during the short period of 48.5 second

that the Satellite existed, it worked fairly normally. That is why we claim that it was a partial success, and there are many technological lessons we could usefully learn from this, and incorporate in the next flight of the ASLV.

PROF. NARAIN CHAND PARASHAR : It has been mentioned in the statement that 'studies are under way to further improve launch capability for geosynchronous missions of INSAT class with Geosynchronous Satellite Launch Vehicle (GSLV)'. May I know whether enough resources, that is, financial resources, are being provided so that these studies are completed at the earliest and our programme is on schedule and even expedited? Secondly, what are the specific usages of the Satellites for tele-communications and broadcasting and TV programme?

SHRI K. R. NARAYANAN : We have set apart sufficient funds for execution of the space profile that we have drawn up.

As regards the practical uses, the satellite system is used for tele-communication, television, which again can be translated into practical programmes for education, removal of illiteracy, etc. As far as Remote Sensing Satellite is concerned, it can be used and it is being used already for mapping ground water resources, agricultural resources, forest resources, soil conditions, etc. Some of these are already in application in India.

SHRI S. JAIPAL REDDY : Sir, we are not among those who believe that this failure should deter or daunt us as a nation or our scientists. I want just to know the approximate expenditure incurred on the ASLV machine.

SHRI K. R. NARAYANAN : I welcome the first part of the statement made by the Hon. Member. In fact, we should not be daunted by this. As a matter of fact, we have to give, and I hope the House will agree, a tribute to the work done by our scientists. Our space programme has been an original programme of indigenisation and the achievements they have already made are creditable for the country.

About the actual cost of this, the launch vehicle itself cost Rs. 6 crores and the satel-

lite Rs. 4 crores.

SHRI AMAL DATTA : Both have been destroyed ?

SHRI K. R. NARAYANAN : They have been destroyed naturally. I don't know what the Hon.^o Member has in mind.

SHRI AMAL DATTA : I only want to know whether it was only the launch vehicle you were testing or you were trying to put the satellite into the orbit.

SHRI K. R. NARAYANAN : The object was to put the satellite into the orbit.

MR SPEAKER : No Mr. Minister.....
(Interruptions)...Without my permission it does not go on record.

THE PRIME MINISTER (SHRI RAJIV GANDHI) : If I may answer a part of that, the object was to launch the satellite. But the object of the satellite was to monitor the rocket. Almost 99.5 per cent of the task of the satellite was the monitoring of the operation and functioning of the rocket.

SHRI G. G. SWELL : It is reassuring to hear what the Minister said that another launching is going to take place within this year because we attach great importance to this programme and the programme must go on. But I am afraid, we are not enlightened as to what were the infirmities in the last effort—whether you have identified those infirmities and what are you doing to make up for that.

SHRI K. R. NARAYANAN : We have identified what went wrong. Actually what went wrong was the ignition system or the first stage. The core motor of the first stage of the launch vehicle did not function. We know that the command was given, but the ignition did not take place. This was the basic reason why the satellite could not go up. There are so many other information which are coming. In fact, millions of data are coming up which are computerised and analysed. The exact reason why the command did not make the core of the first stage motor operate is still being analysed. We have not yet discovered the exact reason for

that. We know that this was the main failure.

SHRI BHAGWAT JHA AZAD : Sir, in this satellite programme hundreds of technology systems and circuits were used, most of them indigenous. I want to know whether the part which failed was a result of our indigenisation or was it a developed technology used which failed.

SHRI K. R. NARAYANAN : I thank you for that question. This technology was used in SLV III and successfully used. It is a tested technology developed in India which did not operate, which did not function. It was not the new technology which did not function. In fact, the new technology, the Strap-on motors functioned beautifully. From this we conclude that some malfunctioning took place, and not any basic defect because this was tested in SLV IV flight earlier.

DR. KRUPASINDHU BHOI : Sir, in the Press report one top class scientist who is engaged in the Department has told categorically that ASLV had got no defect; that there was no defect mechanically but because Sri Harikota comes under critical area so it could not be successful and, therefore, we are thinking of changing the launching site from Sri Harikota to Andaman and Nicobar islands. I would like to know whether it is a fact or not.

SHRI K. R. NARAYANAN : We have seen this statement in the Press. I do not know if the scientist concerned is a well known or reputed scientist but as far as the facts are concerned Sri Harikota has no defect or no disqualification as a launching site. What this scientist has stated is that the gravitational anomaly which exists in this Sri Harikota has prevented successful launching. In fact, gravitational anomaly does not affect any launching at all anywhere because the thrust of the rocket is so powerful and the gravitational pull is so minor that nowhere in the world it has affected the launching at all.

As regards Andamans, we have a tracking station at the Andaman and Nicobar islands and it is ideal for tracking. It is not suitable for launching. If we launch our

satellites from there it is likely that the fall out would be on land rather than in the sea. Therefore, Andamans we did not consider suitable as a launching site while Sri Hari-kota is a suitable site.

(Interruptions)

PROF. P. J. KURIEN: Sir, Sri Hari-kota is an area of maximum gravitational anomaly and, therefore, any projectile will be affected by the gravitational anomaly. So for a rocket if the direction is tilted even by an infinitely small angle, the direction will change and it will affect the result. This is also the view of some of the scientists. Therefore, that area for launching rockets should be re considered. Will the Minister look into this aspect?

SHRI K. R. NARAYANAN: Our specialists have looked into it very carefully. I am afraid it is old physics that he is talking about.

Chairmen and Managing Directors of public undertakings

*493 SHRIMATI PATEL RAMABEN RAMJIBHAI MAVANI: Will the PRIME MINISTER be pleased to state:

(a) the number of public sector undertakings in which the posts of Chairman and Managing Director are held by the same person;

(b) the number of public sector undertakings where these posts are held by different persons;

(c) the number of public sector undertakings having non-officials as Chairman/Managing Director; and

(d) the policy of Government regarding appointment of non-officials as Chairman/Managing Director of public sector undertakings?

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS AND MINISTER OF STATE IN THE MINISTRY

OF HOME AFFAIRS (SHRI P. CHIDAMBARAM): (a) to (c). As per available information, there are 128 Central public sector enterprises having the post of Chairman-cum-Managing Director and 80 enterprises where these posts are bifurcated to that of part-time Chairman and full-time Managing Director. There are at present 20 public enterprises having a non-official as part-time Chairman of the enterprise.

(d) The normal policy is to have a Chairman-cum-Managing Director as Chief Executive of a Central public sector enterprise. In exceptional and special circumstances, where the Government is satisfied, the post may be divided into that of a part-time Chairman and a full-time Managing Director, who will function as Chief Executive of the enterprise.

[Translation]

SHRIMATI PATEL RAMABEN RAMJIBHAI MAVANI: Mr. Speaker, Sir, in reply to my question the Hon. Minister has stated that where the Government is satisfied, the post is divided into that of a Chairman and a Managing Director. It is generally seen that an official or a retired I.A.S. officer is appointed on the post of Chairman for which there are no norms. May I know the reasons therefor?

My second supplementary is that in the situation that prevails today, many of the public undertakings are incurring losses and a lot of corruption and bungling is going on. Such complaints are received from all Government sectors. It causes a huge loss to the exchequer and results in lesser national production. Therefore, I would like to know whether Government proposes to appoint full time Chairman and full-time M.D. in all Undertakings and whether in view of the public convenience, Government will consider increasing the term of such posts to five years?

[English]

SHRI P. CHIDAMBARAM: Sir, the policy is to have a full-time Chairman-cum-Managing Director. But, as I said, in 80 enterprises we have allowed a part-time Chairman and a full-time Managing Director