

(b) if so, the details thereof; and

(c) if not, the reasons therefor?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRIKAMAL MORARKA): (a) No, Sir.

(b) Does not arise.

(c) Non-Railway Central Government employees are not entitled to the facility of free Railway pass even when they are in service. The question of extending this facility to them after retirement, therefore, does not arise.

People below poverty line in Orissa

1768. SHRI BALGOPAL MISHRA: Will the PRIME MINISTER be pleased to state:

(a) the number and percentage of persons living below poverty line in Orissa particularly in the Bolangir district;

(b) whether the Government have any time bound programme to bring these persons above the poverty line; and

(c) if so, the details thereof?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRIKAMAL MORARKA): (a) The number and percentage of persons living below poverty line in Orissa for the year 1987-88 are given below:

<i>No. of persons (in lakhs)</i>	<i>% of persons</i>
135.1	44.7

District-wise estimates of people below poverty line are not available.

(b) No, Sir. While the Government of India assists State Government to rapidly

alleviate poverty in their States, it does not undertake any time-bound programme on its own in respects of a particular State.

(c) Does not arise.

Development of Polar Satellite Vehicle

1769. SHRI BALGOPAL MISHRA: Will the PRIME MINISTER be pleased to refer to the reply given to Unstarred Question No. 4932 on 16 April, 1990 and state the details of the progress made to develop Polar Satellite Launch Vehicle so far?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRIKAMAL MORARKA): The progress made so far in the development of the first development Polar Satellite Launch Vehicle (PSLV-D1) is given below:

- *First stage:* Large 125 tonne solid propellant booster in 5 segments (World's third largest booster of its kind) has been successfully realised and tested. Three out of five flight segments have been cast.
- *Second stage:* A 37.5 tonne liquid rocket engine has been indigenously realised and successfully tested in a battleship stage version with the establishment of large test facilities at Mahendragiri in Tamil Nadu. The required liquid propellants have been developed and productionised in the country.
- *Third stage:* An advanced 7 tonne solid propellant upper stage motor with composite casing has been successfully ground tested. Further tests are planned for flight qualification.
- *Fourth stage:* The first full duration

test for 370 seconds of the clustered (two) engine using liquid propellant has been successfully accomplished, which will be followed by further qualification tests.

- *Light Alloy structures and heat shield:* The inter-stage structures and heat shield for the PSLV, totalling to 12 sub assemblies are under fabrication at Hindustan aeronautics Limited (HAL).
- *Avionics systems:* Qualification models of all flight electronic packages were realised tested and evaluated and flight models are getting completed for the first flight and stand-by requirements. Inertial guidance system hardware and software were realised and qualification tests are nearing completion in parallel with flight system preparation activities. The achievement in this area is significant since these are available only in the advanced countries.
- *Launch complex:* The 3000 tonne, 75 metre height mobile service structure of the launch complex has been commissioned. Work on the integration and check-out facilities are under-way. The required tracking radars developed indigenously with ISRO knowhow are getting ready.

Thus the efforts are on to realise the launch of the first developmental flight of PSLV in 1991-92.

Parallel Processing Machine for Super Computer

1770. SHRI BALGOPAL MISHRA: Will the PRIME MINISTER be pleased to refer to the reply given to Unstarred Question No.

4918 on 16 April, 1990 and state the progress made to evolve parallel processing machine in the performance range of super computers so far?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRIKAMAL MORARKA): The Centre for Development of Advanced Computing (CDAC), Pune, a registered autonomous society under the Department of Electronics has developed a Parallel Processing Computer System in the performance range of super computers. A 64 node parallel system developed by CDAC has a performance range of 270 MFLOPS (Mega Floating Point Operations Per Second) range of super computers.

The architecture of the target machine which will have a scalable performance over one Giga FLOPS (Floating Point Operations) and 3000 MIPS (Million Instructions per Second) has been finalised. A number of parallel processing software tools and utilities have been developed.

Significant progress has been made in applications development covering the areas of Image Processing, Remote Sensing, Computational Fluid Dynamics, Finite Element Methods, Oil Reservoir Modelling, Seismic Data Processing, Molecular Modelling, Signal Processing, Circuit Simulation, Power Systems Analysis, Speech Recognition, Computational Physics and Chemistry, Astronomy and Astrophysics, Computational Mathematics and Scientific Visualization.

Import of Raw Material

1771. SHRI HARISH RAWAT: Will the PRIME MINISTER be pleased to state:

(a) whether the import of raw materials like non-ferrous metals and petroleum products required for industrial production may be affected due to Gulf crisis resulting in decline in the targeted ten per cent industrial