

the percentage of value of imported components is about 50%. For the Launch Vehicle Projects, Viz., ASLV-D3, PSLV and GSLV, the percentage is about 25%

(b) India will be able to launch IRS class and INSAT-2 class of satellites on its own once the Polar Satellite Launch Vehicle (PSLV) and Geosynchronous Satellite Launch Vehicle (GSLV), presently under development, are operationalised. The first launch of PSLV is expected to take place in the next three months and the first launch of GSLV in 1995-96. By 1997 after GSLV is operationalised, there will be no need for India to seek launches from abroad.

Capacity Utilisation of Madras Atomic Power Project

7787 SHRI GOPINATH GAJAPATHI: Will

| <i>Capacity factor (%)</i> | <i>Unit</i> | | |
|----------------------------|----------------|----------------|----------------|
| | <i>1990-91</i> | <i>1991-92</i> | <i>1992-93</i> |
| Unit - 1 | 44 | 43 | 62 |
| Unit - 2 | 56 | 64 | 41 |

(b) and (c) The reasons for the breakdown (Unplanned outages) of the units of Madras Atomic Power Station are equipment failure and grid related problems. The equipment mainly accountable for major losses of availability of the units are generator transformers turbine blades and the inlet manifold in the Calandria. Consequent on the interim solution to solve the problem of calandria inlet manifold, the operating power level of the units has been restricted to 175 MWe per unit by the AERB from end 1989. Efforts for improving the capacity utilisation of these units include strengthening the preventive and predictive maintenance and in service inspection programmes.

Rural Employment in Kalahandi District of Orissa

7788. SHRI MULLAPPALLY RAMACHANDRAN: Will the PRIME MINISTER be pleased to state:

the Prime Minister be pleased to state:

(a) the cost and capacity utilisation of Madras Atomic Power Project;

(b) the reasons of the frequent break down of this Atomic Power Plant; and

(c) the steps taken to avoid losses of the Atomic Power plant?

THE MINISTER OF STATE IN THE MINISTER'S OFFICE (SHRI BHUVNESH CHATURVEDI): (a) The units of the Madras Atomic Power Station (2x200MW) built at a cost of Rs. 245.87 crores have recorded a capacity Utilisation during the last three financial years as follows:

(a) whether the Government of Orissa has sought any special help/assistance from the Central Government to provide rural employment opportunities for the Starvation -stricken people of the Kalhandi district of Orissa; and

(b) if so, the details of the proposal and the amount sanctioned by the Government in this regard?

THE MINISTER OF STATE IN THE MINISTRY OF RURAL DEVELOPMENT (DEPARTMENT OF RURAL DEVELOPMENT) (SHRI UTTAMBHAI H. PATEL) (a) Integrated Rural Development Programme (IRDP) and Jawahar Rozgar Yojana (JRY) are two major rural development programmes of the Central Government for providing employment of Orissa has sought no special help from the central Government to provide rural employment opportunities for the starvation-stricken people of

the Kalahandi district of Orissa. However, following amount was released as Central share

to the Kalahandi district of Orissa during 1992-93 & 1993-94 under IRDP & JRY:-

| <i>Scheme</i> | | <i>Central Share (Rs. in lakhs)</i> | |
|---------------|------|-------------------------------------|----------------|
| | | <i>1992-93</i> | <i>1993-94</i> |
| 1. | IRDP | 102.66 | 111.00 |
| 2. | JRY | 1104.36 | 513.00 |

(+ Includes Rs. 32.00 lakhs as additional funds released on 31.3.93 excluding Million Wells Scheme (MWS)

(* Refers to first instalment excluding MWS).

(b) Does not arise.

power Generation from Waste/ Garbage

7789 SHRI HARISH NARAYAN PRABHU ZANTYE: Will the PRIME MINISTER be pleased to state:

(a) whether the Government have imported technology/developed technology for power generation from waste/garbage;

(b) if so, the details of such projects launched in the country with location, Project cost and other features of these projects, project-wise and power generated from each of such projects;

(c) the total amount invested so far and achievement recorded; and

(d) the details of proposals under consideration during the Eighth Five year Plan?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES AND MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRIS KRISHNA KUMAR) (a) to (c): A pilot R & D

project for generation of 3.75 MW power from garbage (Municipal Solid Waste) has been installed at Delhi by a foreign firm. The total cost of the project is about Rs. 25 crores. No power has been generated from the project.

Another pilot project for generation of 10 MW power based on agricultural waste (Rice straw) has been installed at Jalkheri in Patiala district of Punjab. The technology for this project has been mainly developed indigenously by BHEL, who are the turnkey contractor. A small component concerning the fuel firing system has only been imported from Denmark for this first pilot project. The project installation has been completed and is under final trial stages. Some trouble noticed optic are being attended by BHEL. The total cost on this project is about Rs. 36 crores. The project when under regular operation will generate 10 MW of power.

Two pilot projects for development of Cogeneration technology in M.R. Krishnamurthy Cooperative Sugar Mills Ltd., (Sethiathope), Tamil Nadu and The Cheyuar Cooperative Sugar Mills Ltd., Tamil Nadu have been taken up. The project envisages installation of higher pressure & higher efficiency boiler and turbo alternator (3x2.5 MW) for efficient utilisation of bagasse to produce about 4 MW of surplus power for