

25 to 50 cents per kilowatt hour. However, photovoltaic power can be economical in remote and unelectrified areas and for small power applications, as is also the case in India.

Solar water heating systems for household use are considered to be commercially viable in most countries including India. The cost of a *solar water* heating system of 100—120 litre capacity varies between \$ 400—600. Industrial and institutional solar water heating systems are competitive only if the alternative is electricity or a high-priced fuel.

(d) As a result of development and commercialisation efforts made during the past two decades, a substantial base for the manufacture of solar photovoltaic and solar thermal products has been established in India. Almost the entire production of solar cells in India is based on the single crystal silicon technology. Technologies such as multi-crystalline silicon, amorphous silicon and other thin film solar cells which account for over 60% of the world's production are not yet in commercial production in India. Nevertheless, solar cells and modules made in India are being exported to several countries abroad. Solar collector material for thermal applications is also being exported *from* India. Several Indian companies have obtained the ISO 9000 quality certification.

The main difference in the production of solar products in India and some other countries lies in the volume of production and the range of technologies employed. Leading foreign companies have production capacities which are 5 to 10 times that of Indian companies. A higher level of automation is also seen in foreign manufacturing organizations.

Central Grant for Solar Energy in Bihar

† 1182. SHRIMATI KUM KUM RAI: Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) the quantum of Central grant released for the development of solar energy in Bihar during 1998 to 2001; and

† Original notice of the question was received in Hindi.

[2 August, 2000]

RAJYA SABHA

(b) what are the details of proposed grant for the development of solar energy in Bihar during the next three years?

THE MINISTER OF STATE OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (*SHRI M. KANNA** PPAN): (a) The Ministry is implementing various solar energy programmes in the country. The grants (*OT* these programmes are released to the implementing agencies. The central grant released to the programme implementing agencies in Bihar for the solar energy programmes during the 1998—2001 period is given below:

Year	Released
	(Rs. in Lakhs)
1997-98	25.00
1998-99	245.54
1999-2000	369.72
2000-2001	6.2(*)

(*) — upto 28th July 2000

(b) The allocation of targets and release of *grant* are made on yearly basis. Therefore, no funds have been earmarked for the State of Bihar or any other State for *the next* three years* period.

Non-Conventional Energy Sources in Tribal Areas

† 1183. *SHRI MOOLCHAND MEENA*: Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) whether any new Non-Conventional energy sources have been developed in the country;

† Original notice of the question was received in Hindi.