

(c) 3 rural clusters have been established in Andhra Pradesh under NPRI. The district-wise details are:

1 in Chittoor district on Idol making; 1 in Srikakulam district on Ponduru Khadi; and 1 in East Godavari district on Mango Jelly Processing.

(d) KVIC is developing 1 cluster on Ponduru Khadi in Srikakulam district of A.P.

### **Bringing wasteland under Agriculture**

1458. SHRI K. RAHMAN KHAN: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that the ISRO Chief Shri K. Kasturirangan, while speaking at the Indian Science Congress held in Delhi, has said that 45 million out of 64 million hectares of so called wasteland can be brought under some type of Agriculture;

(b) if so, what are the details thereof; and

(c) what other revelations were made by the ISRO Chief on the occasion?

THE MINISTER OF STATE IN THE DEPARTMENT OF SPACE (SHRIMATI VASUNDHARA RAJE): (a) and (b) Shri K. Kasturirangan, Chairman, ISRO in his presentation on "Space Technology and Applications for Food, Nutrition and Environment Security" at the 88th Indian Science Congress held in New Delhi, had mentioned that satellite images have been used to map wastelands in the country for the Ministry of Rural Development. A Technical Task Group, constituted by Planning Commission and Ministry of Rural Development, had arrived at the definition of the wastelands as those degraded and under-utilised lands that could be brought under vegetative cover with reasonable effort, and also a 13 fold classification of the wastelands. He added that the Ministry of Rural Development had recently published a Wasteland Atlas of India, based on the satellite mapping, wherein it has been stated that a total of about 4 million hectares, of the country is under wastelands. He observed that, out of these 64 million hectares, about 45 million

hectares could be made culturable- meaning that the productive use of land could be enhanced by appropriate reclamation measures for agriculture, forestry, agro-horticulture, horticulture, grasslands, silvopasture, etc.

(c) In the presentation, Chairman, ISRO outlined how space technology inputs, both from remote sensing and satellite communications, could benefit programmes of enhancing security of food, nutrition and environment in the country. He gave examples of the usage of the satellite images for national-level inventory/mapping of various natural resource themes for Central/State Government agencies. He specifically illustrated the Ministry of Agriculture's project for Crop Acreage and Production Estimation, Ministry of Rural Development's project for identification of target areas for groundwater exploration and recharge, Ministry of Water Resource's programme for surface water inventory and command area management, Ministry of Agriculture's project for monitoring of salt-affected and water logged areas, Ministry of Rural Development's programme for integrated approach to land and water resources management in watersheds, flood inundation and agricultural drought monitoring and the pilot programme for establishing a National Natural Resources Information System. Lastly, he envisioned the need for a national endeavor on Precision Farming by adopting high technology inputs.

#### **Satellite Telephone Linkage**

1459. SHRI W. ANGOU SINGH: Will the PRIME MINISTER be pleased to state:

(a) whether the Indian Space Research Organisation would provide satellite telephone linkages to all the districts of the country;

(b) the number of States who have asked for ISRO's help to set up such vital Communication link; and

(c) whether it is a fact that a comprehensive agenda for upgradation of police communication network in the States submitted by ISRO is yet to get approval of the Ministry of Home Affairs?