

(d) whether it is also a fact that ISRO shares the information it gathers with other neighbouring countries; and

(e) if so, the details thereof?

THE MINISTER OF STATE IN THE DEPARTMENT OF SPACE (DR. JITENDRA SINGH): (a) and (b) Space Applications Working Group, one of the four Working Groups of Asia Pacific Regional Space Agency Forum (APRSAF), has recommended to further promote space applications, including rice crop monitoring, global rainfall monitoring, fire hotspot, haze monitoring and disaster management, at the 24th session of APRSAF held at Bengaluru in November 2017.

(c) Indian Space Research Organisation (ISRO) is carrying out studies in the above said areas.

(d) and (e) ISRO shares the information with other neighbouring countries, in the event of disasters, through many programmes including Sentinel Asia (APRSAF's initiative for disaster management support), International Charter 'Space and Major Disasters', United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP), United Nations Platform for Space based Information for Disaster management and Emergency Response (UNSPIDER), COSPAS-SARSAT system for search and rescue operations, "Severe Thunderstorms: Observations and Regional Modeling (STORM)" programme of SAARC.

#### **Private sector in space programme**

2051. SHRI N. GOKULAKRISHNAN: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that the India Space Research Organisation (ISRO) is considering to open its doors to private sector;

(b) whether it has also issued a tender to the private industry for assembly, integration and testing of 30-35 satellites;

(c) whether it is also a fact that under this programme, 4-5 companies would be selected after evaluation and award parallel contracts; and

(d) if so, the details thereof?

THE MINISTER OF STATE IN THE DEPARTMENT OF SPACE (DR. JITENDRA SINGH): (a) ISRO has been working with the Indian Industries for a long time in realising its satellites and launch vehicles.

(b) to (d) An Expression of Interest (EOI) was floated for assembling, integration and testing of satellites involving private sector for building satellites of different mass. After technical evaluation of EOI, Request for Proposal (RFP) has been floated. Evaluation of RFP responses is under progress.

#### **Commercial launching of satellite**

2052. SHRI PARIMAL NATHWANI: Will the PRIME MINISTER be pleased to state:

(a) the names of the countries whose satellites have been commercially launched by ISRO so far;

(b) whether Government has earned any income from the said launches;

(c) if so, the details of income earned during the last three years, year-wise and country-wise;

(d) whether Government also launches satellites of private companies; and

(e) if so, the details thereof?

THE MINISTER OF STATE IN THE DEPARTMENT OF SPACE (DR. JITENDRA SINGH): (a) As on date, Antrix Corporation Limited (Antrix), the commercial arm of Indian Space Research organisation (ISRO), has successfully launched 209 foreign satellites from 29 countries under a commercial arrangement.

The names of the countries whose satellites have been successfully launched include *viz.* Algeria, Argentina, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Finland, France, Germany, Italy, Indonesia, Israel, Japan, Kazakhstan, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Republic of Korea, Singapore, Slovakia, Switzerland, Turkey, UAE, UK and USA.

(b) and (c) During the last three years, starting from April 2014 till March 2017, Antrix has earned revenue of approx. 107 Million Euros and 4.5 Million USD in Foreign Exchange.

Year	Countries whose satellites were launched	Revenue earned by Antrix
2014-15	Canada, France, Germany, Singapore	18 M Euro
2015-16	Canada, Indonesia, Singapore, UK, USA	55 M Euro
2016-17	Algeria, Canada, Germany, Indonesia, Israel, The Netherlands, Kazakhstan, UAE, USA	34 M Euro and 4.5 M USD