

GOVERNMENT OF INDIA
DEPARTMENT OF SPACE

RAJYA SABHA
UNSTARRED QUESTION NO. 1232

TO BE ANSWERED ON THURSDAY, JULY 30, 2015

ISRO AND NASA WORKING ON NISAR MISSION

1232. SHRI RANJIB BISWAL:

Will the PRIME MINISTER be pleased to state:

- (a) whether ISRO and NASA are jointly working on the NASA-ISRO Synthetic Aperture Radar (NISAR) mission to codevelop and launch a dual frequency synthetic aperture radar satellite;
- (b) if so, the details thereof along with the aims and objectives of the mission;
- (c) the present status of the mission and the time by which the NISAR satellite is likely to be launched; and
- (d) the total cost of the project and the expenditure sharing pattern between the two agencies?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG &
PENSIONS AND IN THE PRIME MINISTER'S OFFICE
(DR. JITENDRA SINGH):

- (a) Yes Sir.
- (b) NASA-ISRO Synthetic Aperture Radar (NISAR) mission is a dual frequency (L & S Band) Radar Imaging Satellite. In this joint mission, JPL/ NASA will be responsible for design & development of L-band SAR, 12m unfurlable antenna, GPS system and data recorder. ISRO will be responsible for design & development of S-band SAR, Spacecraft Bus, data transmission system, Spacecraft integration & testing, launch using GSLV and on-orbit operations.

The aim and objectives of NISAR mission are:

- Design, Develop and launch a Dual frequency (L and S Band) Radar Imaging Satellite.

- Explore newer application areas using L and S band microwave data, especially in natural resources mapping & monitoring; estimating agricultural biomass over full duration of crop cycle; assessing soil moisture; monitoring of floods and oil slicks; coastal erosion, coastline changes and variation of winds in coastal waters; assessment of mangroves; surface deformation studies due to seismic activities etc.
- (c) Implementation Arrangement (IA), defining the roles and responsibilities of ISRO and NASA has been signed by the two agencies in September 2014. ISRO has completed the Baseline Design Reviews of Spacecraft and S-band SAR payload. JPL has successfully completed the Mission Concept and Key Decision Point reviews. The first Joint Steering Group (JSG) meeting of NISAR was held on July 21, 2015. NISAR satellite is expected to be launched during the year 2021.
- (d) The cost of the project comprises of (i) cost of ISRO's work share, which is estimated to be ` 788.00 Cr and (ii) cost of JPL's work share, which is expected to be around USD 808 millions.
