

**GOVERNMENT OF INDIA
SPACE
LOK SABHA**

UNSTARRED QUESTION NO:1626
ANSWERED ON:04.08.2010
LAUNCH OF CHANDRAYAAN-II
Naranbhai Shri Kachhadia

Will the Minister of SPACE be pleased to state:

- (a) whether the Chandrayaan-II project, scheduled to be launched in 2013, is being fabricated on the cost-effective designs developed recently by ISRO keeping in view the abrupt ending of Chandrayaan-I mission;
- (b) if so, the details thereof;
- (c) whether the findings of Chandrayaan-I relating to chemical, mineralogical and photo geological mapping, have been analysed to confirm that the envisaged objectives of this mission have been achieved;
- (d) if so, the details thereof; and
- (e) the details of the cost sharing between India and Russia in the Chandrayaan-II project?

Answer

MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE, MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES & PENSIONS, MINISTRY OF PARLIAMENTARY AFFAIRS , MINISTRY OF SCIENCE & TECHNOLOGY AND MINISTRY OF EARTH SCIENCES (SHRI PRITHVIRAJ CHAVAN):

(a) Yes, Sir.

(b) The Chandrayaan-II project is being designed and worked out based on the experience gained and lessons learnt from the Chandrayaan-I project. The reasons that caused the termination of the Chandrayaan-I project, ahead of its originally planned life-span, are being specifically addressed in the Chandrayaan-II project.

(c) & (d) The data provided by the Moon Mineralogy Mapper (M3) and Hyper-Spectral Imager (HySI) instruments, carried on-board the Chandrayaan-I spacecraft, have revealed large spans of crystalline feldspar on the lunar surface. The data provided by the Chandrayaan-I X-ray Spectrometer (C1XS) has revealed the presence of Magnesium, Aluminium, Silicon and Calcium on the lunar surface. The analysis of the data provided by the Miniature Synthetic Aperture Radar (Mini-SAR), the Terrain Mapping Camera (TMC), and the Lunar Laser Ranging Instrument (LLRI) has helped in photo-geological mapping of considerable part of the lunar surface. These are in addition to the discovery of the hydroxyl and water molecules near the polar regions of the moon. Thus, the envisaged objectives of the Chandrayaan-I project have been achieved to a considerable extent.

(e) The Chandrayaan-II project is envisaged to have an Indian Orbiter module with scientific instruments to go round the moon and a Russian Lander module carrying an Indian Rover and a few scientific instruments. The Chandrayaan-II project will be launched using the Indian Geostationary Launch Vehicle - GSLV. The costs towards these components will be met by the Space Agencies of the respective countries.