Chandrayaan-I

3597. SHRI N.K .SINGH :

SHRIMATI SHOBHANA BHARTIA :

Will the PRIME MINISTER be pleased to state:

(a) whether the country's first mooncraft, Chandrayaan-I has developed snag and also collapsed;

(b) if so, the facts and details thereof;

(c) whether the factors responsible for the failure of the 'star sensor' and 'Bus management units' of the Chandrayaan-I have since been examined; and

(d) if so, the details thereof and further reaction of Government in this regard?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN) : (a) Yes, Sir. Chandrayaan-I has developed a problem in its star sensor, but the mission has not collapsed.

(b) Chandrayaan-I's star sensor, which provides orientation of the spacecraft, has failed on May 2, 2009, after satisfactorily working for seven months. However, the orientation of Chandrayan-1 is done by the alternate mode by using gyro scopes and the RF sensors, onboard the spacecraft.

(c) and (d) A combination of high temperature and high radiation faced by Chandrayaan-I in orbit, has been the cause for the star sensor failure and partial failure of bus management unit. After the failure, however, the mission has been carried out using the contingency recovery procedures, which are part of the methodology adopted for counteracting failures in such complex spacecraft systems.

Chandrayaan Project

3598. SHRI P. RAJEEVE : Will the PRIME MINISTER be pleased to state:

(a) the actual cost for the 'Chandrayaan' project;

(b) whether the reports regarding the failure of Chandrayaan are correct;

(c) if so, the reasons therefor; and

(d) if not, the benefits that have occurred to the national by this project?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (SHRI PRITHVIRAJ CHAVAN) : (a) The total cost of 'Chandrayaan-1' project is Rs. 386 crores.

(b) and (c) No, Sir. The Chandrayaan is still functional. However, due to the failure of a star sensor, an alternate method of orienting satellite, has been arrived and Chandrayaan-1 is operating satisfactory. About 90% of the mission objectives have been achieved.

(d) Chandrayaan-1 has demonstrated the technology capability of Indian launch vehicle to take satellites to a distance of 400,000 km and precisely place in Moon's orbit. Chandrayaan-1 has collected valuable scientific data from the 11 instruments onboard this sapcecraft. The deep space tracking network established as part of the project, is a permanent asset for future planetary missions.