

**GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA**

UNSTARRED QUESTION NO:6550
ANSWERED ON:06.05.2015
LANDING OF SOLAR POWERED SWISS AIRCRAFT
Owaisi Shri Asaduddin

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

- (a) whether a solar powered Swiss aircraft recently landed in the country;
- (b) if so, the details thereof;
- (c) whether this is the first innovation of such type of aircraft in the world;
- (d) if so, whether his Ministry proposes to adopt such technology and innovation in using solar energy beyond light and power;
- (e) if so, whether any action plan has been chalked out by the Government for harnessing solar energy in this regard; and
- (f) if so, the details thereof?

Answer

MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE MINISTRY OF EARTH SCIENCES (SHRI Y.S. CHOWDARY)

(a) & (b): Yes, Madam. A solar powered Swiss aircraft named Solar Impulse-2 (Si2) landed in the country at 11:24 pm on 10th March 2015 at Ahmedabad's Sardar Vallabhbhai Patel International Airport. On the morning of 18th March 2015, it flew from Ahmedabad and reached Lal Bahadur Shastri Airport, Varanasi in about 13 hours. On 19th March, it took off from Varanasi for its next destination to Mandalay (Myanmar). This aircraft has 17,248 ultra thin high efficiency mono-crystalline silicon solar cells and 4 high energy density lithium-polymer batteries to supply the extremely low energy loss electric motors. The light-weight plane (2300 kg) is made with ultra light thin ply carbon fibre composite with wing span of 226 feet whose upper surface made of solar panels. The plane can fly at maximum speed of 140 km/hour.

(c) Yes, Madam. This is the first innovation of such type of aircraft in the world.

(d) to (f): The Ministry is already promoting research on highly efficient solar cells, light weight materials, energy storage etc. Beyond light and power, the use of solar energy for desalination, solar cooling, process heat application, drying of crops etc is already being pursued. A call for mobilizing proposals for research, technology and innovations on solar thermal, energy storage, photovoltaics and grid integration including select topics stated above has been launched recently.