

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO. 5445
ANSWERED ON 25/03/2026**

SCIENCE DIPLOMACY & STRATEGIC AUTONOMY

5445. SMT. HIMADRI SINGH:

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

- (a) the manner in which the SDI has fostered global cooperation on the governance of disruptive technologies and ethical AI frameworks;**
- (b) the specific role of the Principal Scientific Adviser in aligning scientific research with country's strategic autonomy;**
- (c) whether the Government has established a Science Diplomacy Desk to strengthen trusted international research networks in the year 2026 and if so, the details thereof; and**
- (d) the manner in which the SDI is facilitating pre-competitive research collaborations to address global challenges like pandemic preparedness?**

ANSWER

**MINISTER OF STATE (INDEPENDENT CHARGE) OF THE
MINISTRY OF SCIENCE AND TECHNOLOGY AND EARTH SCIENCES
(DR. JITENDRA SINGH)**

(a) The Science Diplomacy Initiative (SDI) facilitated deliberations among scientists, diplomats, policymakers, and industry leaders on the governance of disruptive technologies including ethical AI frameworks, and highlighted the importance of strengthening capacity for science diplomacy, leveraging scientific cooperation to reduce global inequalities, reinforcing multilateral engagement, promoting collaborations in pre-competitive research areas and addressing technology governance challenges through practical, use-cases driven approach. The deliberations focused on emerging equitable and effective governance models for frontier technologies, including anticipatory policy process, inclusive norm-setting, and the importance of aligning technological innovation with contextual ethical and societal considerations.

(b) The Office of the Principal Scientific Adviser operates at the interface of the larger scientific enterprise and the governance architecture of the Government of India. The PSA and his office play a catalytic role in synthesising scientific evidence and expert inputs to support informed and strategic policy decision-making. Through mechanisms such as the Prime Minister’s Science, Technology and Innovation Advisory Council (PM-STIAC) and the Empowered Technology Group (ETG), the Office of the PSA evaluates the country’s technological capabilities, external dependencies, and potential for indigenisation. Based on these assessments, it helps shape national missions and strategies in frontier and critical technologies, including quantum technologies, artificial intelligence, and drones, to strengthen India’s strategic autonomy posture.

(c) The International Cooperation Division of the Ministry of Science and Technology plays a central role in facilitating science diplomacy for negotiating, concluding and implementing Science, Technology and Innovation (STI) Agreements between India and other countries through bilateral, multilateral & regional; and thematic cooperations to strengthen trusted international research networks.

(d) As technologically advanced nations increasingly incorporate research security and technology security into their policy frameworks, science diplomacy initiatives, including that of SDI, international science diplomacy panels and voluntary networks of domain experts, provide important avenues for fostering collaborative global research partnerships. These are particularly relevant in pre-competitive, frontier technology domains, such as quantum technologies, vaccine research, and synthetic biology, to collectively address shared developmental challenges, including pandemic preparedness. India engages in R&D collaborations with the European Union, United States, United Kingdom, Germany, Australia, Japan and others in climate change and pandemic preparedness through programmes like Horizon Europe, vaccine partnerships, and clean energy research initiatives, strengthening global scientific cooperation and resilience.
