

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
RAJYA SABHA
UNSTARRED QUESTION NO. 2994
ANSWERED ON 13/08/2026

EXPOSURE OF GIRLS IN STEM IN ANDHRA PRADESH

2994 SHRI BHASHYAM RAMA KRISHNA:

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

- (a) the salient features and objectives of the Vigyan Jyoti Programme and whether districts in Andhra Pradesh have been covered under it through Jawahar Navodaya Vidyalayas;
- (b) the nature of interventions provided to meritorious girl students under the programme there including exposure to premier scientific institutions, mentorship and role-model interactions; and
- (c) whether any assessment has been made of the impact of such interventions on girl students' choice of STEM streams and career pathways and the plans to deepen this engagement, including extending the programme to more districts and government schools in the State?

ANSWER

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

(a) The Vigyan Jyoti Programme, launched during 2019-20, is a flagship initiative aimed at encouraging meritorious girl students to pursue higher education and careers in Science, Technology, Engineering, and Mathematics (STEM). The programme seeks to promote gender parity in STEM by nurturing and sustaining the talent pool of girls in science and technology through a range of year-round interventions. The salient features of the programme include hands-on experiential learning sessions, interactions with eminent scientists and scientific role models, visits to research and development (R&D) institutions and industrial laboratories, career guidance workshops, and student-parent counselling sessions. These activities are designed to enhance scientific temperament, increase awareness of STEM career opportunities, and motivate girls to pursue science-based education and professions. In Andhra Pradesh, the programme is being implemented through Jawahar Navodaya Vidyalayas (JNVs). At present, it covers nine JNVs located in the districts of Sri Sathya Sai (Ananthapur), West Godavari, Visakhapatnam, Chittoor, Kurnool, Srikakulam, East Godavari, Guntur, and Kadapa. Since 2020-21, the Vigyan Jyoti Programme has benefited 4,559 girl students in Andhra Pradesh through various interventions aimed at promoting their participation and continued engagement in STEM education.

(b) Under the Vigyan Jyoti Programme, meritorious girl students in Andhra Pradesh are provided with a range of academic and mentoring interventions to encourage them to pursue higher education and careers in Science, Technology, Engineering and Mathematics (STEM). The programme includes orientation programmes, student-parent counselling sessions, interactions with women scientists and other scientific role models, science camps, hands-on experiential learning, laboratory visits, career guidance, and coaching for competitive examinations. Students also participate in tinkering activities, experiential learning workshops, science conclaves, and exposure visits to premier scientific institutions organised through the Knowledge Partner.

(c) The impact of the Vigyan Jyoti Programme on girl students' choice of STEM streams and career pathways is assessed through a structured monitoring and evaluation mechanism. This includes periodic feedback from participating Jawahar Navodaya Vidyalayas (JNVs) and follow-up with beneficiaries after completion of Classes X and XII to assess programme outcomes. The assessment tracks the number of girl students opting for the Science stream after Class X, the number of beneficiaries pursuing STEM education after Class XII, and their progression into STEM-related higher education and career pathways. Programme outcomes are also documented through success stories, written testimonials, and video testimonials shared by beneficiaries. The assessment indicates that the programme has made a significant contribution towards enhancing awareness, motivation, and participation of girl students in STEM education and career pathways. Reflecting these positive outcomes, the programme coverage in Andhra Pradesh has progressively expanded from 3 districts during 2021-22 to 7 districts during 2022-23 and to 9 districts from 2023-24 onwards. Further expansion of the Vigyan Jyoti Programme is guided by its objectives and operational guidelines.
