

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO.6133
TO BE ANSWERED ON 4/4/2018

SCIENCE EXPRESS SPECIAL TRAIN

6133. DR. J. JAYAVARDHAN:
SHRIMATI SUPRIYA SULE:
SHRI MOHITE PATIL VIJAYSINH SHANKARRAO:
SHRI DHANANJAY MAHADIK:
SHRI SATAV RAJEEV:

Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौद्योगिकी मंत्री be pleased to state:

- (a) whether the Government has introduced Science Express-climate action special train;
- (b) if so, the details thereof along with the stations covered in each State and total length in kms. it has covered since its launch;
- (c) the objectives set/achieved in this regard;
- (d) the present status of the cities covered by the Science Express special train;
- (e) the expenditure incurred till date on Science Express special train; and
- (f) the steps being taken by the Government to introduce more science expresses in future?

ANSWER

MINISTER OF SCIENCE AND TECHNOLOGY, MINISTER OF EARTH SCIENCES AND MINISTER OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

(DR. HARSH VARDHAN)

विज्ञान और प्रौद्योगिकी मंत्री, पृथ्वी विज्ञान मंत्री और पर्यावरण, वन एवं जलवायु परिवर्तन मंत्री

(डा. हर्ष वर्धन)

- (a) Yes, Madam.
- (b to (d): The Government introduced the Science Express Climate Action Special (SECAS) exhibition train in 2015. It travelled across India to convey the message of climate change and make people aware about its implications and possible actions to address the issue. SECAS was a modified version of 'Science Express', a 16 coach Air conditioned train which was custom-built for Department of Science and Technology (DST) by Indian Railway in 2007. After the seven successful tours across India, it was redesigned on the theme 'Climate Change' as 'Science Express Climate Action Special (SECAS)'. It was a unique collaborative initiative of DST, Ministry of Environment, Forest & Climate Change (MoEFCC) and Ministry of Railways, Government of India. The state-of-the-art exhibition on board the SECAS aims to create awareness among various sections of society as to how climate change can be combated through mitigation and adaptation. The exhibition, having no entry fee and open to all, primarily targeted students and teachers, conveying a strong message about Climate Change. It also provided a good opportunity to generate dialogue and discussion. Thus, the state-of-the-art exhibition aboard the 'Science Express Climate Action Special met the set objectives to create awareness among various sections of society, especially students, as to how Climate Change could be combated through mitigation and adaptation. Of the 13 exhibition coaches of SECAS, exhibits in 8 coaches were exclusively devoted to information, case studies and material related to various aspect of Climate change, the underlying science, impacts, adaptation activities, mitigation solutions and policy approaches in a manner that is easy to understand and interesting for not just school students but also the masses. For the first time, solar panels have been installed on the rooftop of Science Express coaches 11-13 for harnessing solar energy. The broad theme covered in each exhibition coach is as follows:
- Coach 1: Understanding Climate Change - Insights in the climate as a system, the greenhouse gas effect and the underlying reasons for climate change with key message that the current change in the climate is due to human activities.
 - Coach 2: Impact of Climate Change - How temperature rise, monsoon variations, sea level rise are predicted to affect vital sectors like water, agriculture, forests and biodiversity, and human health and ways to reduce these.
 - Coach 3 & 4: Adaptation - Concepts of adaptation and examples from day to day life, adaptation strategies and stories from field. Adaptation options in urban and rural contexts and the adaptation actions India is taking.
 - Coach 5 & 6: Mitigation - Concept and definition with examples, emphasis on restoring balance, enhancing sinks and reducing emission through Renewable Energy (RE) technologies. Various programmes implemented by India and low carbon strategies and ambitious goal to increase RE footprint.
 - Coach 7: International Negotiations on Climate Change - Introduction to UNFCCC, IPCC and internationally agreed action & targets. Explaining concept of equity and common but differential responsibility, Kyoto protocol & other key outcomes of major COP, etc.

- Coach 8: Handprint - What can one do at school, on roads, at home and in offices and focus on concept of lifestyle choices with the key message 'Increase your Handprint. Decrease your Footprint'.
- Coach 9 & 10: Exhibition put up by the Department of Biotechnology (DBT), Govt of India, covering themes like Biotechnology for bio-resources and nature conservation with emphasis on Tiger Conservation and Chemical Ecology and India's research and development initiatives in field of Biotechnology.
- Coach 11: Exhibition put up by the National Innovation Foundation (NIF) showcasing select innovations, demonstrating the ingenuity of common people and an innovative project which uses augmented reality techniques. It also include exhibition on themes like Innovations in S&T, Technological solutions for societal development, etc.
- Coach 12: A Kids Zone is set up for children from Std. 4 and below to participate in fun-filled activities, games and puzzles in science, mathematics and environment.
- Coach 13: The Joy of Science (JOS) Hands-on Lab in this coach is a space where students from Std. 5-10 can perform experiments and activities to understand concepts in environment, science and mathematics in an interesting manner. A training facility is also set up for orientation of teachers here.

SECAS has successfully completed two tours of India in two phases- first run, the eighth phase of Science Express, was from 15 October 2015 to 7 May 2016 and second run or the ninth phase of Science Express from 17 February 2017 to 8 September 2017. In these two phases, the SECAS has halted at 138 Railway Stations in 22 States, covering 39,000 km. At each halt of SECAS, activities were planned to connect with visitors across different age groups to reinforce its message. An exciting Outreach Programme was also conducted in local schools/institutions along with activities on the railway platforms to ensure that those waiting for their turn to see the exhibition are gainfully engaged. In addition, informative take-away material was made available for wider distribution amongst schools and visitors. Science Express in its nine phases since its launch till 8 Sept 2017 has halted at 531 Railway Stations on Broad Gauge in 24 States across India. There has been overwhelming response at every halt of the Science Express in all its nine phases. Since its initial launch on 30 October 2007 and till end of ninth phase on 8 Sept 2017, it has been visited by 1.81 crore people across India. Details of Railway Stations/Cities/ Towns covered in each state are as under:

Sr. No.	State	No. of Stations Covered	No. of Cities/town covered
1	Andhra Pradesh	9	9
2	Delhi	3	1
3	Rajasthan	7	7
4	Punjab	7	7
5	Haryana	3	3
6	Himachal Pradesh	2	2
7	Jammu & Kashmir	3	3
8	Uttar Pradesh	8	8
9	Uttarakhand	4	4
10	Madhya Pradesh	7	7
11	West Bengal	10	10
12	Assam	8	8
13	Odisha	7	7
14	Chhattishgarh	2	2
15	Telangana	3	3
16	Tamil Nadu	10	10
17	Kerala	5	5
18	Karnataka	7	7
19	Maharashtra	12	12
20	Gujarat	10	10
		127	125

(e) The expenditure incurred on all the phases put together is Rs.112.77 crore which includes payment of Rs.94.98 crore to Indian Railways.

(f) As the Science Express train rake has completed nine phases in ten years, its programme has been shelved. DST has already requested Indian Railway to take charge of the Rake and there is presently no plan to introduce more Science Expresses in future.
