GOVERNMENT OF INDIA
MINISTRY OF CULTURE
RAJYA SABHA
UNSTARRED QUESTION NO 671
ANSWERED ON 05/02/2026

CHALLENGES FACED BY NCSM

671. SHRI SAMIK BHATTACHARYA:

Will the Minister of CULTURE be pleased to state:

(a) the budget allocated to National Council of Science Museums (NCSM) during the last five years and whether financial constraints are limiting modernization and expansion;
(b) the number of exhibits in NCSM museums that have been updated during the last five years and the steps taken to introduce interactive and technology-driven displays;
(c) the measures to enhance accessibility for rural population and promote regional language inclusivity in exhibits; and
(d) the initiatives planned to integrate virtual reality, augmented reality and gamification to modernize science communication in NCSM museums?

ANSWER

THE MINISTER OF CULTURE & TOURISM
(SHRI GAJENDRA SINGH SHEKHAWAT)

(a) The budget allocated to National Council of Science Museums (NCSM) during the last five years is placed at Annexure-I. It is informed that the projected requirements of NCSM are examined in detail each year during the Budget Estimates (BE) and Revised Estimates (RE) stages. Wherever additional requirements have arisen beyond the initial allocations, the Ministry has endeavoured to augment the funds through re-appropriation, savings and supplementary provisions, subject to availability of resources.

The Ministry of Culture continues to extend financial support to NCSM for modernization and expansion activities, and necessary funds are provided from time to time to ensure uninterrupted functioning and progressive development of science centres and museums.

(b) The number of exhibits in NCSM museums that have been updated/renovated/fabricated in the last five years is 1608. NCSM follows a policy of incorporating interactive, immersive and technology-driven elements while developing new galleries as well as in modernization and upgradation projects. These include hands-on exhibits, digital interfaces, multimedia presentations, simulation-based learning modules, audio-visual systems and other emerging technologies aimed at enhancing visitor engagement and learning outcomes. The exhibits and galleries are designed to cater to diverse age groups and learning levels, keeping in view contemporary scientific advancements and modern museum practices.

(c) The details regarding measures to enhance accessibility for rural population and promote regional language inclusivity in exhibits is attached at Annexure-II.

(d) The National Council of Science Museums (NCSM) is actively undertaking initiatives to integrate Virtual Reality (VR), Augmented Reality (AR) and gamification in its museums to modernize science communication and enhance visitor engagement. NCSM is developing and deploying immersive, interactive and technology-driven exhibits using advanced digital tools such as motion sensors, computer vision, artificial intelligence and touchless interfaces. These initiatives aim to create engaging, intuitive and inclusive learning experiences through interactive storytelling, simulation-based displays, projection mapping and gamified content. All newly developed and modernized galleries increasingly incorporate such technologies in line with contemporary museum practices. Details of select exhibits incorporating VR, AR and gamification, installed at various NCSM units are placed at Annexure-III.

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ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (A) OF RAJYA SABHA UNSTARRED QUESTION NO. 671 FOR 05.02.2026 ASKED BY SHRI SAMIK BHATTACHARYA

The budget allocated to National Council of Science Museums (NCSM) during the last five Financial Years

(Rs. in lakh)

Sl no.	Name of the budget head	2020-21		2021-22		2022-23		2023-24		2024-25	
		Budget allocated	Expenditure incurred	Budget allocated	Expenditure incurred	Budget allocated	Expenditure incurred	Budget allocated	Expenditure incurred	Budget allocated	Expenditure incurred
1	GIA-CCA	591.60	591.63	500.00	500.02	899.95	901.00	1,700.00	1,706.09	1,474.00	2,086.74
2	GIA - Salary	914.93	914.93	10,501.18	10,501.18	10,800.00	10,427.11	11,800.51	11,620.61	11,836.00	11,835.62
3	GIA - General	426.86	426.86	447.00	447.00	2,928.50	2,928.50	4,558.00	7,349.34	4,525.00	9,248.45
4	GIA-SAP	1.40	1.40	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00

Annexure-'II'

ANNEXURE REFERRED TO IN REPLY TO PART (C) OF RAJYA SABHA UNSTARRED QUESTION NO. 671 FOR 05.02.2026 ASKED BY SHRI SAMIK BHATTACHARYA

Significant efforts have been made to enhance accessibility for rural populations by incorporating regional languages and inclusive digital tools. To ensure wider accessibility and promote regional language inclusivity, NCSM and its units have launched several initiatives aimed at reaching rural communities and making science communication more inclusive:

1. **Mobile Science Exhibitions (MSE) for Rural Areas**

   - Mobile Science Exhibitions bring interactive exhibits to rural areas, ensuring that scientific knowledge reaches those who may do not have access to traditional museums.
   - A fleet of 48 MSE buses, of which 25 in aspirational districts, conducts programs across the country on various topics on science, technology and environment.
   - As Mobile Science Exhibitions (MSE) travel from one state to another, the language of the exhibit labels are changed accordingly as per the respective regional language, so that the scientific content of the MSE can be understood by the local populace easily.

2. **Online Virtual Exhibitions for Rural Audiences**

   - NCSM is launching online virtual exhibitions, allowing people in remote areas to explore museum exhibits from anywhere.
   - These virtual exhibits provide multilingual content to ensure inclusivity for diverse linguistic groups.

Annexure-'III'

ANNEXURE REFERRED TO IN REPLY TO PART (D) OF RAJYA SABHA UNSTARRED QUESTION NO. 671 FOR 05.02.2026 ASKED BY SHRI SAMIK BHATTACHARYA

(i) Birla Industrial & Technological Museum (BITM), Kolkata and its Satellite Units

Sl. No.	Exhibit Name	Year	Location
1.	Balloon Burst	2019-20	Digital Adventure Gallery, BITM
2.	Virtual Motion	2019-20	Digital Adventure Gallery, BITM
3.	Virtual Reality world	2019-20	Digital Adventure Gallery, BITM
4.	Magic Floor	2019-20	Digital Adventure Gallery, BITM
5.	Augmented Reality	2019-23	Digital Adventure Gallery, BITM (2019-20) Ocean Gallery, SrikrishnaScience Centre, Patna (2019-20) Popular Science Gallery, Bardhaman Science Centre (2019-20) Digha Science Centre, Digha (2022-23)
6.	Interactive Table	2019-20	Digital Adventure Gallery, BITM
7.	Virtual Bike Racing	2019-20	Digital Adventure Gallery, BITM
8.	Interactive table	2019-20	Digital Adventure Gallery, BITM
9.	Gesture Ping Pong Game	2022-23	Digital Adventure Gallery, BITM
10.	Virtual Football	2022-23	Popular Science Gallery, NBSC Siliguri
11.	Artifact Alive	2024-25	BITM
12.	Augmented reality and chroma key interaction	2024-25	Television Gallery, BITM
13.	Space Debris	2024-25	Digital Adventure Gallery, BITM

(ii) National Science Centre, Guwahati

- 'Dinosaur Park'
- 'Virtual Wardrobe'

- The gallery on 'Traditional medicines of North East India' presents few more AR based exhibits, such as

    1. 'Herbal Vapour Therapy'
    2. To enhance visitor engagement, this gallery will have a gaming exhibit 'Test your knowledge' where visitor will be given a hunting challenge on a digital 3D virtual garden.

(iii) Visvesvaraya Industrial & Technological Museum (VITM), Bangalore and its Satellite Units

a. In VITM Virtual Reality technology was used in Electronics gallery. Puzzle corners and Quiz corner are introduced. Multi touch tables and interactive kiosks were used wherever necessary.

b. Various Projection technologies are included in the Astronomy gallery of Regional Science Centre &Planetarium, Calicut as below.

- Stellar evolution - Immersive projection on a 15' dia Circular screen
- Journey of Hubble – a Cycloramic projection
- Galaxies and Cosmology – a panoramic interactive projection
- Planets and satellites – 3d globe projection
- Exoplanets – 3D holographic projection
- Asteroids and meteorites – 3D holographic fan
- Big Bang – Visual seeker technology
- Blackhole – interactive touch wall
- Space time curvature – interactive touch wall
- Expanding universe – interactive video wall

(iv) National Science Centre, Delhi

- 'Black Diamond: Unveiling the Depths' Gallery has 44 exhibits based on VR , AR etc.
- 'Digital World Gallery' has 36 exhibits based on immersive experiences and interactive simulations.

(v) Science City, Kolkata

Use of digital interfaces have been extensively done for the development of exhibits for the gallery on Climate change. Some of the important technologies that has been used are as follows-

1. Holographic fan - Carbon emitters, Ice stupas: Watering the Himalaya
2. Immersive ride - Arctic adventure
3. Amalgamating mechanical and digital animation - Glacial Lake outburst flooding
4. Immersive room with AV and live streaming of data - Retreating glacier
5. Virtual reality - Coral loosinglustre
6. Multi-touch interface - Heat wave, Surging seas
7. Augmented reality - Storm surge
8. Crowd data collection - Be the weatherman
9. Sensor driven AV interaction - Uncover climate secrets
10. Projection mapping - Warming up naturally, Human induced global warming, Point of no return, Beat the heat
11. Digital wall - Every action counts, Plant one more
12. Anamorphic 3d film - LED wall

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