SCIENTIFIC RESEARCH INFRASTRUCTURE SHARING MAINTENANCE AND NETWORKS (SRIMAN) GUIDELINES

Government of India
Department of Science & Technology
Ministry of Science & Technology
New Delhi
May, 2022

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1. Preamble

Scientific infrastructure is the foundation of research and innovation. Hence, facilitating availability, accessibility and sharing of scientific Research Infrastructure (RI) needs to become a key goal particularly for countries with limited resources. It can promote Science and Technology based development and enhance the social and economic outcome of research. This priority is challenged by the capital-intensive nature of RI, which reduces the feasibility of its wide scale replication.

Funding agencies, policy makers and scientists need to adopt a new approach that can make RI available to all stakeholders. For a country like India, it thus becomes imperative to adopt the Scientific RI Sharing Maintenance and Networks (SRIMAN) Guidelines that can promote efficient utilisation and wider access of RI to scientists, researchers and industry professionals across the country by creating a network of relevant stakeholders.

In the recent past, India has witnessed growth in acquisition of research equipment. However, development and recurring maintenance of RI is an expensive affair. The challenge is escalated given the fact that Indian research ecosystem is highly dependent on imported instruments[1]. Majority of such equipment is not shared and marred with maintenance issues and lack of spares which adds to the burden of RI costs. In addition, access to equipment and its proper utilisation also needs attention. Therefore, development of a sharing mechanism and promotion of a culture of collaboration between institutions and other stakeholders would enable optimum utilisation and better maintenance of RI. Manufacturing of indigenous instruments to reduce dependency on imports is essential. Further, human resource development for operations and management of RI is crucial.

2. Objectives

i. Make publicly funded scientific RI available as a valuable public resource by providing better access and sharing for extensive and optimal use of the community.

ii. Promote Indigenisation of scientific research equipment manufacturing and encourage domestic manufacturers.

[1] A 2013 study by NSTMIS, DST reveals that 94% of research equipment used in India is imported while only 6% is manufactured indigenously.

iii. Improve efficiency of public expenditure by sharing expensive and state-of-the-art publicly funded RI.

iv. Develop monitoring mechanisms for the creation and maintenance of RI to avoid unnecessary duplication in purchase of expensive scientific equipment thereby minimising the cost of research.

v. Ensure simplified and smarter ways of procurement, maintenance and disposal of scientific RI.

3. Scope of the Guidelines:

i. All Government scientific departments, research organisations and grantee agencies.

ii. All Ministries and Departments of Government and its organisations that support development of scientific RI, other than Scientific departments and Government organisations funding or receiving funds for conducting scientific research in the strategic sectors.

iii. Private institutions can also be partners and/ or beneficiaries in such endeavours based on mutual agreement.

The discretionary authority to define exclusive and shareable infrastructure along with providing exceptions will remain with the Department of Science and Technology (DST), except in case of strategic departments, which will be discretionary authorities for their own infrastructure.

4. Elements of the Guidelines:

4.1. Better Access and Sharing of Publicly Funded Scientific Research and Development Infrastructure

4.1.1. Networking and Cluster Approach

To promote excellence in research and avoid duplication of RI (unless specifically required for scientific reasons), the granting agency will promote networking among grantee agencies at the local levels. A consortium may be created with academic and research institutes, private institutions, Science and Technology councils and industries belonging to the same domain that lie in close vicinity on mutually agreeable terms.

When a large number of RI grants are given to a collection of grantee agencies within a radius of 25-30 Kms (may be considered a cluster), the granting agency/ agencies will facilitate the creation of a ***Cluster Central Instrumentation Facility (CCIF)***. This would not only reduce redundancy of equipment / RI within the cluster, but also help in acquiring more variety of equipment with the funds received, thereby benefiting the whole cluster.

The granting agency/ agencies may develop *CCIF* in any one of the following modes:

- Public Private Partnership (PPP) mode with revenue sharing
- Service facility within a grantee agency
- Not-for-Profit (Section 8) company

Sanction of duplicate equipment to grantee agencies may be granted when backed by proper scientific explanation. In case of individual institutions, as far as possible the granting agency will urge grantee agencies to put all expensive equipment under an ***Institutional Central Instrumentation Facility (ICIF)***[2]**.** Its operation and maintenance will be vested with the grantee agency. A regional grid for commonly used consumables may also be facilitated, which will aid in faster procurement of consumables for laboratories and institutions in the region.

Industry, especially MSMEs and startups need ease of access to the high end infrastructural and informational resources for development, testing, standardization, prototyping. This requires professionally managed, autonomous centres established in the knowledge institutions such as IITs, NITs etc, for example, on the lines of **Sophisticated Analytical & Technical Help Institutes (SATHI)**[3] to be established in sufficient numbers and covering major sectors.

4.1.2 Promoting a culture of sharing through Incentivisation

Mechanisms for incentivisation will be put in position at different levels, e.g individual researcher, institute, cluster etc.to promote sharing of RI as a culture change within the STI ecosystem. Organisations like the National Assessment and Accreditation Council (NAAC) and others which promote excellence in academia may give appropriate importance to this aspect.

A rating system may be developed for grantee agencies on the aspect of access and sharing of RI. Granting agencies may give appropriate importance to this rating while deciding on funding.

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2. If such a central instrumentation facility, which carries out routine, preventive and breakdown maintenance does not exist, then it is desirable that such an organisation be created within the grantee agency so that more people can get the benefit of using expensive RI.

3. The DST's unique scheme called SATHI has already set up 3 centres in the country, one each at IIT Kharagpur, IIT Delhi and BHU. Based on experience of these, plans will be made to set up 5 SATHI Centres every year for four years. These Centres have major analytical instruments and advanced manufacturing facilities to provide common services of high-end analytical testing, thus avoiding duplication and reducing dependency on foreign sources.

Each grantee agency receiving expensive research infrastructure[4] through project grants or otherwise will have to sign a Memorandum of Understanding (MoU) giving details of the amount of time such RI will be available for sharing.

4.1.3 Providing greater access through online Portals

In the case of expensive RI, efforts will be made to provide access to researchers across the country through a national portal or other online tools. The granting agencies will maintain an online portfolio of expensive RI. It will be integrated with existing portals and databases like Indian Science Technology and Engineering facilities Map (I-STEM), Shared RI for Science, Technology and Innovation (SRISTI), Scientific Infrastructure Access for Harnessing Academia University Research Joint Collaboration (SAHAJ), DST-The Energy and Resources Institute's (DST-TERI) equipment database on extramural R&D projects, the India Science, Technology and Innovation Portal (ISTI) hosted by Vigyan Prasar etc.

4.1.4 Developing Human Resource

One of the major areas of concern with regard to scientific RI is the shortage of skilled operators. Therefore, granting agencies will take up a plan for creating a pool of trained and certified personnel through a ***National Skill Development Programme in collaboration with relevant ministries***. These programmes will ensure adequate focus on the theoretical, hands on, troubleshooting and maintenance aspects of RI. Such certificates will be recognised during recruitment and career progression of the trainees.

A database of trained personnel will be maintained and integrated with the national RI portal. At the inception of any grant, the granting agency will seek a plan on capacity building of operators to ensure that operators are acquainted with the latest technologies and are able to manage RI efficiently. If required, additional allocation of resources may be made to upskill the operators. Programmes like Accelerate Vigyan[5] will help in supporting of high end technology training programs and developing of a database.

4.1.5 Rejuvenating Instrumentation as a Discipline

The granting agencies will also endeavour to strengthen instrumentation as a discipline in prescript academic institutions especially IITs and NITs, and conduct programmes to link the

[4.] Expensive research infrastructure generally refers to those instruments with a value above Rs. 25 Lakh subject to consideration by DST.

[5.] Accelerate Vigyan is a scheme launched by Science & Engineering Research Board (SERB) to provide greater thrust on supporting high end training of the scientific and technology manpower for effective use and maintenance of S&T infrastructure. It has two components viz, ABHYAAS and SAMMOHAN. The programme aims to build a database of skilled manpower and also focus on one of the components of the scientific social responsibility of the scientific community.

discipline to the practice and requirements of the end users. Premier academic institutes where instrumentation is being pursued will become nodal agencies for capacity building of operators with a mandate for skill building. It is expected that they will also encourage startups in this space. Efforts will be made to develop and harness highly skilled technical professionals for customised support to high-end research. A long-term career path for the cadre of skilled technical/support professionals for R&D needs to be chartered.

4.1.6 Intellectual Property Rights (IPR) issues

Individual researchers availing the facility of RI within the organisation of the grantee agency or outside will enjoy complete rights on their IP. Just by providing access and sharing RI, a grantee agency cannot claim any IPR on the work done by individual researchers. However, researchers should duly acknowledge the benefit received by accessing and sharing RI.

4.2 Smarter Procurement, Maintenance and Disposal of Public Scientific Research Infrastructure

4.2.1 Government e- Marketplace (GeM) and Voluntary Advisory Body

The funding agencies will promote procurement as a policy through GeM for items which are available in GeM. The funding agencies will create ***Voluntary Advisory Bodies (VAB)*** on specific domains of RI consisting of researchers, practitioners and purchase specialists. Every grantee agency should seek the help of a VAB for advice on specification, appropriateness, costing of RI and for assistance on issues such as procurement related activities. In addition, a National Steering Committee will be set up to provide overall guidance and advice to funding agencies and VABs. To ensure transparency in the procurement of RI, a database of procurement details that includes price, specifications, accessories etc, will be maintained and the data made available to the institutions/scientists whose projects are being supported by the public money.

4.2.2 Setting Productive Life of Research Infrastructure

Proper planning will be done to ensure that the RI is procured and maintained for a reasonable time/productive life. For expensive RI, the productive life may be determined by a committee within the grantee agency. For the purpose of procurement, every institution's/organisation's procurement cell must involve specialists and / or seek assistance from VABs.

4.2.3 Providing Financial Resources for Maintenance of Research Infrastructure and Operators

To make use of the productive life of the equipment /RI, all grants will have the following components:

i. RI acquisition cost

ii. Maintenance cost of the RI for at least 2 years beyond the life of the project (for project grants) or provision to maintain it for a reasonable period of time (for other grants).

iii. Cost of operators.

iv. Potential fees through user charges will be collected over the productive life of the RI.

4.2.4 Smarter Maintenance and Disposal

As a good practice of infrastructure management, a documented maintenance strategy will be developed by each grantee agency for the RI. The grantee agency can adopt an in-house maintenance team model or an outsourced model, depending on the need and nature of use. Infrastructure management must be conducted professionally and the capacity of internal stakeholders must be developed to reduce operation time, and widen the access to RI. For expensive RI, best maintenance practises will involve ensuring remote access and monitoring for the purpose of demonstration, remote diagnostics and repair. It will be apt to create a separate category of projects that support the maintenance of the already existing RI which are in effective use. This will minimise the need for procuring new RI and prevent the orphaning of old equipment. Wherever necessary, the grantee agencies will be required to dispose RI beyond their productive life in accordance with the General Financial Rules (GFR) 2017 guidelines[6].

4.2.5 Promoting Domestic Instrumentation Industry

The Government of India will also promote indigenous RI by encouraging domestic manufacturers. The granting agency will endeavour to put in place an advocacy mechanism to influence Indian researchers to use indigenous RI. Universities and R&D institutions receiving grants will be encouraged to set up start ups to enable indigenous instrument manufacturing, capacity development and maintenance. To promote domestic manufacturing of RI, it is imperative to foster trust with vendors.

5. Legal Framework

Scientific equipment will remain the property of the granting agency. However, for operational reasons *de facto* ownership will be with the grantee agency which houses the facility. Access to RI under these guideliens will not be in violation of any Acts and Rules of the Government of India. Legal framework of these guidelines will be aligned with various Acts and Rules covering the RI.

[6.] https://doe.gov.in/sites/default/files/GFR2017_0.pdf

6. Implementation

It is envisaged to form a special purpose vehicle (SPV) or body/agency to take care of implementation of these guidelines under the overall control and supervision of DST. This body may be created either in DST or within an institution of good standing funded by DST or in PPP mode.

i. This body/agency will look after the smooth and seamless implementation of the SRIMAN and will develop suitable guidelines from time to time taking due cognisance of current economic and scientific changes in the country. It will further have an advisory committee/ board comprising diverse stakeholders including DST and other scientific departments[7].

ii. The SPV or body will primarily look at management of the national portal on RI which has been envisaged in the gudelines. This portal will enable users to reserve time slots for RI from across the country. It will also allow for collection of usage charges and remote tracking of research work through online tools. The body in consultation with DST will come up with a transparent and objective ***Vendor Rating System*** to capture the performance of vendors of RI and the satisfaction of different stakeholders. The portal will have a grievance redressal mechanism with automated workflow. It will also facilitate inter-ministerial coordination and stakeholder engagement.

iii. The online portal will allow booking of slots during idle time of the RI (after due preference to grantee agency). A reasonable fee for maintenance and running cost may be levied on researchers. The industry researchers may also be given access by collecting appropriate fees. A part of the fee may be levied while blocking the timeslot of RI to keep away non-serious users. This fee (partially or fully) even though collected centrally will be transferred to the grantee agency in due course and will be used for better maintenance and capacity building. The implementation agency which will manage this online mechanism may also levy a nominal convenience fee. The mechanism to develop a fee structure will be decided by DST. As far as possible the physical presence of the researcher in the premises of the grantee agency will be minimised and the researcher would be aided with sufficient assessment mechanisms to track the progress of the research work through online tools.

iv. The SPV or body will rationalise and harmonise user charges for similar equipment across the country and ensure that revenues generated are put to optimal use and that the institutions do not indulge in predatory pricing.

v. The body will promote capacity building and awareness/publicity of RI created nationally.

[7]. A tentative list of scientific departments is appended herewith. The list is only indicative and not exhaustive.

vi. The body will enable creation of voluntary advisory groups comprising experts in key technology domains.

7. Way Forward

Adoption of SRIMAN guidelines will transform scientific instruments in government labs into lucrative assets generating a steady rental income and thus enable an efficient and sustainable sharing, maintenance and disposal mechanism of RI. Its Implementation will be a step in the right direction to ensure universal access and sharing of publicly funded scientific RI to a wide range of stakeholders particularly in smaller cities, towns and the hinterlands of India. This would enhance the quality of scientific output of the country and enable researchers in several lesser-known universities who cannot afford expensive RI, to contribute more meaningfully to the scientific ecosystem. Going ahead, the success of the SRIMAN guilelines would lead to better management of infrastructure, creation of a national database of expensive RI and building of a national cadre of highly skilled technical operators for RI. These guidelines are well aligned with India's open science vision and can steer our country towards embracing the open science framework[8]. These Guidelines will also be aligned with Scientific Social Responsibility guidelines[9].

[8] https://dst.gov.in/sites/default/files/STIP_Doc_1.4_Dec2020.pdf

[9] Scientific Social Responsibility Guidelines (2022) provide an ethical obligation of knowledge workers in all fields of science and technology to voluntarily contribute their knowledge and resources to the widest spectrum of stake-holders in society, in a spirit of service and conscious reciprocity.

GLOSSARY OF TERMS

- **Research Infrastructure-** Facilities, resources and services used by the scientific community to conduct research.
- **Infrastructure Management**- The management and maintenance of various resources, people and equipment housed in a particular organisation or institution to ensure optimal usage.
- **Grantee Agency**- An organisation that receives funds from the Government of India.
- **Granting Agency/Funding Agency-** An organisation that allocates funds for scientific research.

APPENDIX

Indicative List of key S&T related ministries, departments and their autonomous institutions and agencies delaing with S&T issues

A. GOI Autonomous Agencies

1.	NITI Aayog
2.	Office of the Principal Scientific Advisor

B. Department of Atomic Energy

1.	Tata Institute of Fundamental Research
2.	Saha Institute of Nuclear Physics
3.	Tata Memorial Centre
4.	Harish-Chandra Research Institute
5.	Institute of Physics
6.	National Institute of Science Education and Research
7.	Institute of Mathematical Sciences
8.	Institute for Plasma Research
9.	Homi Bhabha National Institute
10.	Atomic Energy Education Society
11.	Board of Research in Nuclear Sciences (BRNS)
12.	National Board for Higher Mathematics (NBHM)
13.	University of Mumbai-DAE Centre for Excellence in Basic Sciences

C. Department of Space

1.	Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram.
2.	Liquid Propulsion Systems Centre (LPSC), Thiruvananthapuram.
3.	Satish Dhawan Space Centre (SDSC-SHAR), Sriharikota.
4.	ISRO Satellite Centre (ISAC), Bangalore.
5.	Space Applications Centre (SAC), Ahmedabad.
6.	National Remote Sensing Centre (NRSC), Hyderabad.
7.	ISRO Inertial Systems Unit (IISU), Thiruvananthapuram.
8.	Development and Educational Communication Unit (DECU), Ahmedabad.

9.	Master Control Facility (MCF), Hassan.
10.	ISRO Telemetry, Tracking and Command Network (ISTRAC), Bangalore.
11.	Laboratory for Electro-Optics Systems (LEOS), Bangalore.
12.	Indian Institute of Remote Sensing (IIRS), Dehradun.
13.	Physical Research Laboratory (PRL), Ahmedabad.
14.	National Atmospheric Research Laboratory (NARL), Gadanki.
15.	North-Eastern Space Applications Centre (NE-SAC), Umiam.
16.	Semi-Conductor Laboratory (SCL), Mohali.
17.	Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram – India's space university.
18.	New Space India Limited (NSIL), Bangalore.
19.	Indian National Space Promotion and Authorisation Centre (IN–SPACe)

D. Department of Biotechnology

(i) ***Autonoumus Institutions***

1	National Institute of Immunology, New Delhi
2	National Centre for Cell Science, Pune
3	National Brain Research Centre, Manesar
4	Center for DNA Fingerprinting and Diagnostics [CDFD], Hyderabad
5	National Institute of Plant Genome Research, New Delhi
6	Institute of Life Sciences, Bhubaneshwar
7	Institute of Bioresources and Sustainable Development (IBSD), Imphal
8	Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram
9	Institute for Stem Cell Science and Regenerative Medicine (inStem), Bangalore
10	Translational Health Science and Technology Institute, Faridabad
11	National Institute of Biomedical Genomics, Kalyani
12	Regional Centre for Biotechnology, Faridabad
13	National Agri-Food Biotechnology Institute, Mohali
14	National Institute of Animal Biotechnology (NIAB), Hyderabad
15	CIAB (formerly Bio-Processing Unit), Mohali
16	International Centre For Genetic Engineering and Biotechnology, New Delhi

(ii) ***PSUs***

1	Bharat Immunological & Biological Corporation
2	Indian Vaccine Corporation Ltd (IVCOL)
3	Biotechnology Industry Research Assistance Council (BIRAC)

E. Department of Science & Technology

(i) ***Autonomous instititions***

1	Agharkar Research Institute, Pune
2	Aryabhatta Research Institute of Observational-Sciences, Nainital
3	Birbal Sahni Institute of Palaeobotany, Lucknow
4	Bose Institute, Kolkata
5	Centre for Nano and Soft Matter Sciences, Bangalore
6	Indian Institute of Astrophysics, Bangalore
7	Indian Institute of Geomagnetism, Mumbai
8	International Advanced Research Centre for Powder Metallurgy and New Materials, Hyderabad
9	Institute of Nano Science and Technology, Mohali
10	Indian Association for the Cultivation of Science, Kolkata
11	National Innovation Foundation
12	Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore
13	Raman Research Institute, Bangalore
14	S.N. Bose National Centre for Basic Sciences, Kolkata
15	Sree Chitra Tirunal Institute for Medical Sciences and Technology
16	The Institute of Advanced Study in Science & Technology, Guwahati
17	Technology Information, Forecasting and Assessment Council (TIFAC)
18	North East Centre for Technology Application & Reach (NECTAR)
19	Wadia Institute of Himalayan Geology, Dehradun
20	Vigyan Prasar, New Delhi

(ii) Statutory Bodies

1	Technology Development Board
2	Science and Engineering Research Board (SERB)

F. Department of Scientific & Industrial Research (Council of Scientific and Industrial Research)

1	Council of Scientific and Industrial Research (CSIR)
2	CSIR-Advanced Materials and Processes Research Institute (CSIR-AMPRI), Bhopal
3	CSIR-Central Building Research Institute (CSIR-CBRI), Roorkee
4	CSIR-Centre for Cellular Molecular Biology (CSIR-CCMB), Hyderabad
5	CSIR-Central Drug Research Institute (CSIR-CDRI), Lucknow
6	CSIR-Central Electrochemical Research Institute (CSIR-CECRI), Karaikudi
7	CSIR-Central Electronics Engineering Research Institute (CSIR-CEERI), Pilani
8	CSIR-Central Food Technological Research Institute (CSIR-CFTRI), Mysore
9	CSIR-Central Glass Ceramic Research Institute (CSIR-CGCRI), Kolkata
10	CSIR-Central Institute of Medicinal Aromatic Plants (CSIR-CIMAP), Lucknow
11	CSIR-Central Institute of Mining and Fuel Research (CSIR-CIMFR) Dhanbad
12	CSIR-Central Leather Research Institute (CSIR-CLRI), Chennai
13	CSIR-Central Mechanical Engineering Research Institute (CSIR-CMERI), Durgapur
14	CSIR-Central Road Research Institute (CSIR-CRRI), New Delhi
15	CSIR-Central Scientific Instruments Organisation (CSIR-CSIO), Chandigarh
16	CSIR-Central Salt Marine Chemicals Research Institute (CSIR-CSMCRI), Bhavnagar
17	CSIR Fourth Paradigm Institute (CSIR-4PI), Bengaluru
18	CSIR-Institute of Genomics and Integrative Biology (CSIR-IGIB), Delhi
19	CSIR-Institute of Himalayan Bioresource Technology (CSIR-IHBT), Palampur
20	CSIR-Indian Institute of Chemical Biology (CSIR-IICB), Kolkata
21	CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad
22	CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), UT of J&K
23	CSIR-Indian Institute of Petroleum (CSIR-IIP), Dehradun
24	CSIR-Indian Institute of Toxicology Research (CSIR-IITR), Lucknow
25	CSIR-Institute of Minerals and Materials Technology (CSIR-IMMT), Bhubaneswar
26	CSIR-Institute of Microbial Technology (CSIR-IMTECH), Chandigarh
27	CSIR-National Aerospace Laboratories (CSIR-NAL), Bengaluru
28	CSIR-National Botanical Research Institute (CSIR-NBRI), Lucknow
29	CSIR-National Chemical Laboratory (CSIR-NCL), Pune
30	CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur

31	CSIR-North - East Institute of Science and Technology (CSIR-NEIST), Jorhat
32	CSIR-National Geophysical Research Institute (CSIR-NGRI), Hyderabad
33	CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram
34	CSIR-National Institute of Oceanography (CSIR-NIO), Goa
35	CSIR-National Institute of Science Communication And Information Resources (CSIR-NISCAIR), New Delhi
36	CSIR-National Institute of Science, Technology And Development Studies (CSIR-NISTADS), New Delhi
37	CSIR-National Metallurgical Laboratory (CSIR-NML), Jamshedpur
38	CSIR-National Physical Laboratory (CSIR-NPL), New Delhi
39	CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai
40	CSIR-UNIT: Open-Source Drug Discovery (CSIR-OSDD), New Delhi
41	CSIR-UNIT: Traditional Knowledge Digital Library (CSIR-TKDL), New Delhi
42	CSIR-UNIT: Human Resource Development Centre (CSIR-HRDC), Ghaziabad
43	CSIR-UNIT: Unit for Research and Development of Information Products (CSIR-URDIP), Pune
44	CSIR Madras Complex (CSIR-CMC), Chennai

G. Ministry of Earth Sciences

1.	National Centre for Coastal Research
2.	Indian Institute of Tropical Meteorology
3.	India Meteorological Department
4.	National Centre for Seismology
5.	Indian National Centre for Ocean Information Services
6.	National Centre for Medium Range Weather Forecasting
7.	National Centre for Antarctic and Ocean Research
8.	National Institute of Ocean Technology
9.	Earthquake Risk Evaluation Centre (under the Atmospheric Sciences and Seismology sector)
10.	Indian Tsunami Early Warning Centre
11.	Centre for Marine Living Resources & Ecology (under the Ocean Science & Technology sector)
12.	National Center for Earth System Sciences

H. Department of Agricultural Research and Education (Indian Council of Agricultural Research)

1	ICAR-Central Island Agricultural Research Institute, Port Blair
2	ICAR-Central Arid Zone Research Institute, Jodhpur
3	ICAR-Central Avian Research Institute, Izatnagar
4	ICAR-Central Inland Fisheries Research Institute, Barrackpore
5	ICAR-Central Institute Brackishwater Aquaculture, Chennai
6	ICAR-Central Institute for Research on Buffaloes, Hissar
7	ICAR-Central Institute for Research on Goats, Makhdoom
8	ICAR-Central Institute of Agricultural Engineering, Bhopal
9	ICAR-Central Institute for Arid Horticulture, Bikaner
10	ICAR-Central Institute of Cotton Research, Nagpur
11	ICAR-Central Institute of Fisheries Technology, Cochin
12	ICAR-Central Institute of Freshwater Aquaculture, Bhubneshwar
13	ICAR-Central Institute of Research on Cotton Technology, Mumbai
14	ICAR-Central Institute of Sub Tropical Horticulture, Lucknow
15	ICAR-Central Institute of Temperate Horticulture, Srinagar
16	ICAR-Central Institute on Post harvest Engineering and Technology, Ludhiana
17	ICAR-Central Marine Fisheries Research Institute, Kochi
18	ICAR-Central Plantation Crops Research Institute, Kasargod
19	ICAR-Central Potato Research Institute, Shimla
20	ICAR-Central Research Institute for Jute and Allied Fibres, Barrackpore
21	ICAR-Central Research Institute of Dryland Agriculture, Hyderabad
22	ICAR-National Rice Research Institute, Cuttack
23	ICAR-Central Sheep and Wool Research Institute, Avikanagar, Rajasthan
24	ICAR- Indian Institute of Soil and Water Conservation, Dehradun
25	ICAR-Central Soil Salinity Research Institute, Karnal
26	ICAR-Central Tobacco Research Institute, Rajahmundry
27	ICAR-Central Tuber Crops Research Institute, Trivandrum
28	ICAR-ICAR Research Complex for Eastern Region, Patna
29	ICAR-ICAR Research Complex for NEH Region, Barapani
30	ICAR-Central Coastal Agricultural Research Institute, Ela, Old Goa, Goa
31	ICAR-Indian Agricultural Statistics Research Institute, New Delhi
32	ICAR-Indian Grassland and Fodder Research Institute, Jhansi

33	ICAR-Indian Institute of Agricultural Biotechnology, Ranchi
34	ICAR-Indian Institute of Horticultural Research, Bengaluru
35	ICAR-Indian Institute of Natural Resins and Gums, Ranchi
36	ICAR-Indian Institute of Pulses Research, Kanpur
37	ICAR-Indian Institute of Soil Sciences, Bhopal
38	ICAR-Indian Institute of Spices Research, Calicut
39	ICAR-Indian Institute of Sugarcane Research, Lucknow
40	ICAR-Indian Institute of Vegetable Research, Varanasi
41	ICAR-National Academy of Agricultural Research & Management, Hyderabad
42	ICAR-National Institute of Biotic Stresses Management, Raipur
43	ICAR-National Institute of Abiotic Stress Management, Malegaon, Maharashtra
44	ICAR-National Institute of Animal Nutrition and Physiology, Bengaluru
45	ICAR-National Institute of Research on Jute & Allied Fibre Technology, Kolkata
46	ICAR-National Institute of Veterinary Epidemiology and Disease Informatics, Hebbal, Bengaluru
47	ICAR-Sugarcane Breeding Institute, Coimbatore
48	ICAR-Vivekananda Parvatiya Krishi Anusandhan Sansthan, Almora
49	ICAR-Central Institute for Research on Cattle, Meerut, Uttar Pradesh
50	ICAR-National Institute of High Security Animal Diseases, Bhopal
51	ICAR-Indian Institute of Maize Research,New Delhi
52	ICAR- Central Agroforestry Research Institute , Jhansi
53	ICAR-National Institute of Agricultural Economics and Policy Research, New Delhi
54	ICAR- Indian Institute of Wheat and Barley Research, Karnal
55	ICAR- Indian Institute of Farming Systems Research, Modipuram
56	ICAR- Indian Institute of Millets Research, Hyderabad
57	ICAR- Indian Institute of Oilseeds Research, Hyderabad
58	ICAR- Indian Institute of Oil Palm Research, Pedavegi, West Godawari
59	ICAR- Indian Institute of Water Management, Bhubaneshwar
60	ICAR-Indian Institute of Rice Research, Hyderabad
61	ICAR- Central Institute for Women in Agriculture, Bhubaneshwar
62	ICAR-Central Citrus Research Institute, Nagpur
63	ICAR-Indian Institute of Seed Research, Mau
64	ICAR-Indian Agricultural Research Institute, Jharkhand

I. Ministry of Health & Family Welfare (Indian Council of Medical Research)

1	ICMR National JALMA Institute for Leprosy & Other Mycobacterial Diseases, Agra
2	ICMR National Institute of Occupational Health, Ahmedabad
3	ICMR National Institute of Traditional Medicine, Belagavi
4	ICMR Regional Occupational Health Centre (Southern) - NIOH, Bengaluru
5	ICMR National Centre for Diseases Informatics and Research, Bengaluru
6	ICMR Bhopal Memorial Hospital & Research Center BMHRC, Bhopal
7	ICMR National Institute for Research in Environmental Health, Bhopal
8	ICMR Regional Medical Research Centre, Bhubaneswar
9	ICMR Centre for Research, Management & Control of Heamoglobinopathies - NIIH, Chandrapur
10	ICMR National Institute for Research in Tuberculosis, Chennai
11	ICMR National Institute of Epidemiology, Chennai
12	ICMR National institute of Pathology, Delhi
13	ICMR National Institute of Medical Statistics, Delhi
14	ICMR National Institute of Malaria Research, Delhi
15	ICMR Regional Medical Research Centre, Dibrugarh
16	ICMR Regional Medical Research Centre Gorakhpur
17	ICMR National Animal Resource Facility for Biomedical Research (NARFBR), Hyderabad
18	ICMR National Institute of Nutrition, Hyderabad
19	ICMR National Institute of Research in Tribal Health, Jabalpur
20	ICMR National Institute for Implementation Research on Non-Communicable Diseases, Jodhpur
21	ICMR Regional Occupational Health Centre (Eastern) - NIOH, Kolkata
22	ICMR National Institute of Cholera and Enteric Diseases, Kolkata
23	ICMR - Centre for Research in Medical Entomology - VCRC, Madurai
24	ICMR National Institute of Immunohaematology, Mumbai
25	ICMR National Institute for Research in Reproductive Health, Mumbai
26	ICMR National Institute of Cancer Prevention and Research (NICPR), Noida
27	ICMR Rajendra Memorial Research Institute of Medical Sciences, Patna
28	ICMR Regional Medical Research Centre, Port Blair
29	ICMR Vector Control Research Centre, Puducherry

30	ICMR National AIDS Research Institute, Pune
31	ICMR National Institute of Virology, Pune

J. Ministry of Water Resources, River Development and Ganga Rejuvenation

1	Central Ground Water Board
2	Central Soil and Materials Research Station
3	Central Water and Power Research Station
4	Central Water Commission
5	National Institute of Hydrology, Roorkee
6	North Eastern Regional Institute of Water and Land Management (NERIWALM)

K. Ministry of Electronics and Information Technology

1.	National Informatics Centre (NIC)
2.	Centre for Development of Advanced Computing (C-DAC)
3.	Centre for Materials for Electronics Technology (C-MET)
4.	Education & Research in Computer Networking (ERNET)
5.	National Institute of Electronics and Information Technology (NIELIT - Formerly DOEACC Society)
6.	Society for Applied Microwave Electronics Engineering and Research (SAMEER)
7.	Software Technology Parks of India (STPI)

L. Ministry of New & Renewable Energy

1	National Institute of Solar Energy (NISE), Gurugram, Haryana
2	National Institute of Wind Energy (NIWE) Chennai, Tamil Nadu.
3	Sardar Swaran Singh National Institute of Bio-Energy (SSS-NIBE Kapurthala (Punjab).
4	Indian Renewable Energy Development Agency (IREDA
6	Solar Energy Corporation of India (SECI)

M. Ministry of Education : Higher Educational and Research Institutions)

(i) *Indian Institutes of Technology and Indian Institute of Science*

1	IIT (BHU) Varanasi
2	IIT (ISM) Dhanbad
3	IIT Bhilai
4	IIT Bhubaneswar

5	IIT Bombay
6	IIT Delhi
7	IIT Dharwad
8	IIT Gandhinagar
9	IIT Goa
10	IIT Guwahati
11	IIT Hyderabad
12	IIT Indore
13	IIT Jammu
14	IIT Jodhpur
15	IIT Kanpur
16	IIT Kharagpur
17	IIT Madras
18	IIT Mandi
19	IIT Palakkad
20	IIT Patna
21	IIT Roorkee
22	IIT Ropar
23	IIT Tirupati
24	IISc Bangalore

(ii) ***Indian Institutes of Science Education and Research***

1	Indian Institutes of Science Education and Research, Berhampur
2	Indian Institutes of Science Education and Research, Bhopal
3	Indian Institutes of Science Education and Research, Kolkata
4	Indian Institutes of Science Education and Research, Mohali
5	Indian Institutes of Science Education and Research, Pune
6	Indian Institutes of Science Education and Research, Thiruvananthapuram
7	Indian Institutes of Science Education and Research, Tirupati

(iii) ***National Institute of Technologies***

1	National Institute of Technology Agartala
2	National Institute of Technology Mizoram
3	Motilal Nehru National Institute of Technology Allahabad

4	Maulana Azad National Institute of Technology Bhopal
5	National Institute of Technology Calicut
6	National Institute of Technology Delhi
7	National Institute of Technology Nagaland
8	National Institute of Technology Durgapur
9	National Institute of Technology Uttarakhand
10	National Institute of Technology Goa
11	National Institute of Technology Hamirpur
12	National Institute of Technology Manipur
13	Malaviya National Institute of Technology Jaipur
14	Dr. B R Ambedkar National Institute of Technology Jalandhar
15	National Institute of Technology Jamshedpur
16	National Institute of Technology Puducherry
17	National Institute of Technology Kurukshetra
18	National Institute of Technology Karnataka, Surathkal
19	Visvesvaraya National Institute of Technology Nagpur
20	National Institute of Technology Patna
21	National Institute of Technology Raipur
22	National Institute of Technology Meghalaya
23	National Institute of Technology Silchar
24	National Institute of Technology Sikkim
25	National Institute of Technology Srinagar
26	S V National Institute of Technology Surat
27	National Institute of Technology, Andhra Pradesh
28	National Institute of Technology Tiruchirappalli
29	National Institute of Technology Warangal
30	National Institute of Technology Arunachal Pradesh

(iv) ***National Institutes of Pharmaceutical Education and Research***

1	National Institute of Pharmaceutical Education & Research, Ahmedabad
2	National Institute of Pharmaceutical Education & Research, Guwahati
3	National Institute of Pharmaceutical Education & Research, Hajipur
4	National Institute of Pharmaceutical Education & Research, Hyderabad

5	National Institute of Pharmaceutical Education & Research, Kolkata
6	National Institute of Pharmaceutical Education & Research, Mohali
7	National Institute of Pharmaceutical Education & Research, Raebareli

(v) ***Indian Institutes of Information Technology***

1	ABV -Indian Institute of Information Technology and Management (ABV-IIITM), Gwalior
2	Indian Institute of Information Technology (IIIT), Allahabad
3	Indian Institute of Information Technology, Design and Manufacturing (IIITDM) Kancheepuram, Chennai
4	Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Jabalpur
5	Indian Institute of Information Technology, Design and Manufacturing (IIITDM) Kurnool, Andhra Pradesh
6	Indian Institute of Information Technology Chittoor
7	Indian Institute of Information Technology Guwahati
8	Indian Institute of Information Technology, Kalyani
9	Indian Institute of Information Technology, Una
10	Indian Institute of Information Technology, Vadodara
11	Indian Institute of Information Technology, Kota
12	Indian Institute of Information Technology, Tiruchirappalli
13	Indian Institute of Information Technology, Sonepat
14	Indian Institute of Information Technology, Manipur
15	Indian Institute of Information Technology, Lucknow
16	Indian Institute of Information Technology, Kottayam, Kerala
17	Indian Institute of Information Technology, Dharward
18	Indian Institute of Information Technology, Pune
19	Indian Institute of Information Technology, Bhopal
20	Indian Institute of Information Technology, Agartala
21	Indian Institute of Information Technology, Nagpur
22	Indian Institute of Information Technology, Ranchi, Jharkhand
23	Indian Institute of Information Technology, Surat
24	Indian Institute of Information Technology, Bhagalpur
25	Indian Institute of Information Technology, Raichur Karnataka

(vi) ***School Education and Literacy Institutions***

1	Central Board of Secondary Education (CBSE)
2	Central Institute of Education Technology (CIET)
3	Central Tibetan School Administration (CTSA)
4	Kendriya Vidyalaya Sangathan (KVS)
5	National Bal Bhawan
6	National Council for Educational Research and Training (NCERT)
7	National Institute of Open Schooling (NIOS)
8	Navodaya Vidyalaya Samiti (NVS)
9	National Council for Teacher Education (NCTE)

(vii) Central Universities

S. No.	State	Name of Central University
1	**Andhra Pradesh**	Central University of Andhra Pradesh, IT Incubation Centre Building, JNTU Campus, Chinmaynagar, Anantapuramu, Andhra Pradesh- 515002
2		Central Tribal University of Andhra Pradesh, Kondakarakam, Vizianagaram, Andhra Pradesh 535008
3		The National Sanskrit University, Tirupati, Andhra Pradesh
4	**Assam**	Assam University, PO: Assam University, Silchar - 788 011.
5		Tezpur University, Napaam, Sonitpur, Assam-784 028.
6	**Arunachal Pradesh**	Rajiv Gandhi University, Rono Hills, P.O. Doimukh, Itanagar, Arunachal Pradesh – 791 112.
7	**Bihar**	Central University of South Bihar, SH-7, Gaya-Panchanpur Road, Village – Karhara, Post-Fatehpur, P.S. – Tekari, District –Gaya, Bihar – 824236.
8		Dr. Rajendra Prasad Central Agricultural University, Pusa, Samastipur - 848 125, Bihar
9		Mahatma Gandhi Central University, P.O. Box No.1, Motihari, District- East Champaran, Bihar- 845 401
10		Nalanda University, Rajgir, Dist. Nalanda, Bihar – 803 116.
11	**Chhattisgarh**	Guru Ghasidas Vishwavidyalaya, Main Campus, Bilaspur, Chattisgarh- 495 009

12	**Delhi**	Indira Gandhi National Open University, Maidan Garhi, New Delhi- 110 068.
13		Jamia Millia Islamia**,** Jamia Nagar, New Delhi – 110 025.
14		Jawaharlal Nehru University, New Mehrauli Road, New Delhi- 110 067.
15		Shri Lal Bahadur Shastri National Sanskrit University, Katwaria Sarai, New Delhi.
16		South Asian university, Akbar Bhawan, Chanakyapuri, New Delhi- 110 021.
17		Central Sanskrit university, Janakpuri, New Delhi
18		University of Delhi, New Delhi- 110 007.
19	**Gujarat**	Central University of Gujarat, Near Jalaram Temple, Sector-29, Gandhinagar- 382 029.
20	**Haryana**	Central University of Haryana**,** Jant-Pali Villages, Mahendergarh, Haryana – 123 029.
21	**Himachal Pradesh**	Central University of Himachal Pradesh, PO Box Bo. 21, Dharamashala, Dist- Kangra, Himachal Pradesh- 176 215
22	**Jammu & Kashmir**	Central University of Kashmir, Transit Campus: Sonwar, Near GB Pant Hospital, Srinagar- 190 005 (J&K)
23		Central University of Jammu, Bagla (Rahya- Suchani), District Samba, Jammu- 181 143 (J&K)
24	**Jharkhand**	Central University of Jharkhand, Ratu-Lohardaga Road, Brambe, Ranchi- 835 205, Jharkhand
25	**Karnataka**	Central University of Karnataka, Kadaganchi, Aland Road, Aland Taluk, Gulbarga- 585 311, Karnataka
26	**Kerala**	Central University of Kerala, Tejaswini Hills, Periye (PO), Kasaragod, Kerala- 671316
27	**Madhya Pradesh**	Dr. Harisingh Gour Vishwavidyalaya, Sagar, Madhya Pradesh – 470003.
28		The Indira Gandhi National Tribal University, Makal Sadan, Amarkantak, Madhya Pradesh- 484886
29	**Maharashtra**	Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya, Gandhi Hills, Post- Hindi Vishwavidyalaya, Wardha – 442 005, Maharashtra

30	**Manipur**	Central Agricultural University, Iroisemba, Imphal, Manipur – 795004.
31		Manipur University, Canchipur, Iroisemba, Imphal – 795003, Manipur
32		National Sports University, Kotruk, Manipur- 795146.
33	**Mizoram**	Mizoram University, Post Box No. 910, Aizwal - 796 012, Mizoram
34	**Meghalaya**	North Eastern Hill University, NEHU Campus, Shillong, Meghalaya – 793022.
35	**Nagaland**	Nagaland University, Campus Kohima - 797 001, Headquarter Lumani, Nagaland
36	**Orissa**	Central University of Orissa, Central Silk Board Building, Landiguda, Koraput- 764 020.
37	**Pondicherry**	Pondicherry University, R. Venkataraman Nagar, Kalapet, Puducherry- 605014.
38	**Punjab**	Central University of Punjab, City Campus, Mansa Road, Bathinda –151001, Punjab.
39	**Rajasthan**	Central University of Rajasthan, NH-8, Bandar Sindri, Dist-Ajmer –305801, Rajasthan.
40	**Sikkim**	Sikkim University, 6th Mile, Samdur, P.O. Tadong, Gangtok, Sikkim- 737102.
41	**Tamil Nadu**	Central University of Tamil Nadu, Neelakudi Campus, Kangalancherry (Post), Thiruvarur-610101.
42		Indian Maritime University, East Coast Road, Uthandi, Chennai – 600119.
43	**Telangana**	English and Foreign Languages University, Osmania University Campus, Hyderabad, Telangana- 500007.
44		Maulana Azad National Urdu University, Gachibowli, Hyderabad, Telangana- 500032.
45		University of Hyderabad, Hyderabad, Telangana- 500046.
46	**Tripura**	Tripura University, Suryamaninagar, Agartala, Tripura – 799 130.
47	**Uttarakhand**	Hemwati Nandan Bahuguna Garhwal University, Srinagar, Garhwal –246174.

48	**Uttar Pradesh**	Aligarh Muslim University, Aligarh, U.P. - 202 002.
49		Babasaheb Bhimrao Ambedkar University, Vidya Vihar, Rae Bareily Road, Lucknow, UP-226025.
50		Banaras Hindu University, Varanasi, U.P. - 221 005.
51		University of Allahabad, Allahabad, U.P. - 211 002.
52		Rajiv Gandhi National Aviation University, Fursatganj, D.T,Rae Bareli, UP.
53		Rani Lakshmi Bai Central Agricultural University, NH-75, Near Pahuj Dam, Gwalier Road, Jhansi, UP- 284003.
54	**West Bengal**	Visva Bharati, Shantiniketan, West Bengal – 731 235.

N. State S&T Councils

1	AP State Council of Science & Technology, Andhra Pradesh
2	Assam Science Technology & Environment Council, Assam
3	Bihar Council of Science and Technology, Patna
4	Chhattisgarh Council of Science & Technology, Chhattisgarh
5	Goa State Council of Science & Technology, Bardez
6	Gujarat Council on Science & Technology, Gandhinagar
7	Haryana State S&T Council, Panchkula/
8	Himachal Pradesh State Council for ST&E, Shimla
9	J&K State Council for Science & Technology, Jammu
10	Jharkhand Science & Technology Council, Ranchi
11	Karnataka State Council for Science & Technology, Bangalore
12	Kerala State Council for Science & Technology and Environment, Thiruvananthapuram
13	Madhya Pradesh Council of Science & Technology, Bhopal
14	Maharashtra Rajiv Gandhi S&T Commission, Mumbai
15	Manipur Science & Technology Council, Imphal
16	State Council of Science & Technology and Environment, Shillong
17	Mizoram Council of Science and Technology, Aizwal
18	State Science & Technology Council, Nagaland
19	Science and Technology Council, Bhubaneswar, Orissa
20	Punjab State Council for Science, Technology & Environment, Chandigarh
21	Rajasthan State Council of Science & Technology, Jaipur

22	Sikkim State Council of Science & Technology, Gangtok
23	Tamil Nadu State Council for Science & Technology, Chennai
24	Tripura State Council for Science & Technology, Agartala
25	Telangana State Council for Science and Technology, Hyderabad
26	Council of Science & Technology, Lucknow, Uttar Pradesh
27	Uttaranchal Council of Science & Technology, Dehradun
28	West Bengal State Council of Science & Technology, Kolkata
29	Andaman & Nicobar Science & Technology Council, Port Blair
30	Science & Technology, Silvasa, Dadra & Nagar Haveli
31	Department of Science & Technology, Daman & Diu
32	Department of Environment, Govt. of NCT of Delhi, Govt. of NCT of Delhi
33	Science & Technology Department, Kavaratti, Lakshadweep
34	Puducherry Council of Science & Technology, Puducherry

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