DRAFT POLICY FOR

PUBLIC CONSULTATIONS

SCIENTIFIC SOCIAL RESPONSIBILITY (SSR) POLICY

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Government of India
Ministry of Science & Technology
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<div align="center">**SCIENTIFIC SOCIAL RESPONSIBILITY (SSR) POLICY (DRAFT)**</div>

1. Preamble

Scientific Social Responsibility (SSR) is the confluence of scientific knowledge with visionary leadership and social conscience. SSR is about building synergies among all stakeholders in our scientific knowledge community and also about developing linkages between science and society. Since independence, India's development in the scientific field is praiseworthy; however, the transfer of scientific knowledge and its benefits to society at large is still an area of concern. Thus, apart from deploying more resources on human and social development, building a strong connect between science and society is essential. One way could be through the translation of scientific knowledge in achieving social goals which could be institutionalized through a policy on "Scientific Social Responsibility".

An important justification for SSR is the ethical obligation of "giving back" to less endowed stakeholders of science, technology and innovation as well as society at large, some of the benefits that science derives from it. The relationship between science and society being a two-way engagement, SSR is not only about scientific impact upon society but also about social impact upon science. SSR would therefore strengthen the knowledge ecosystem and bring efficiencies in harnessing science for the benefit of society. It would also bring about an attitudinal change in the mindset and work style of the scientific community, thereby enhancing the social reputation of our scientific organisations. Thus, SSR has the potential to fundamentally transform society by improving the lives of our citizens while helping the nation to achieve its goals for sustainable development.

2. Need for the policy

Science and technology have been an integral part of Indian civilisation and culture over the past several millennia. The earlier S&T policies have also emphasised on the utilisation of science for welfare of the people. However, the new India with its vibrant young populace is a country of ambition and aspiration, requiring a renewed emphasis on the integration of S&T with society at both the institutional and individual levels. Since the impact of S&T on society is often difficult to quantify, the people's representatives and the masses at large are uncertain about how the investments on S&T benefit society. Therefore, an institutional mechanism through SSR policy, facilitating easy access to resources and knowledge, would be a significant step in the right direction. This will have far reaching implications for the new initiatives such as Transformation of Aspirational Districts, Make in India, Swachh Bharat and Digital India, leading to inclusive growth and development. SSR would inculcate moral responsibility amongst scientific community which may trigger social entrepreneurship and start-ups impacting S&T ecosystem and society. This policy would strengthen the existing efforts of institutions in an organised and sustainable manner.

3. Definitions

3.1 Scientific social responsibility (वैज्ञानिकसामाजिकदायित्व)

The ethical obligation of knowledge workers in all fields of science and technology to voluntarily contribute their knowledge and resources to the widest spectrum of stakeholders in society, in a spirit of service and conscious reciprocity.

3.1.1 Scientific (वैज्ञानिक)

All knowledge workers and institutions, whether in the public or private sectors, that are actively engaged or employed in the production, use and dissemination of scientific knowledge and associated skills.

3.1.2 Social (सामाजिक)

The overall educational, developmental and environmental needs of the country as well as the specific local problems of India's rural and urban populations and communities.

3.1.3 Responsibility (दायित्व)

An ethical obligation rather than a legal requirement, thus different from accountability.

3.2 Knowledge worker (ज्ञानकर्मी)

Anyone who participates in the knowledge economy in the areas of the human, social, natural, physical, biological, medical, mathematical and computer/data sciences and their associated technologies.[1]

3.3 Knowledge institution (ज्ञानपीठ)

National and state laboratories and institutions of higher learning and research (institutes, universities and colleges).[2]

3.4 Knowledge economy (ज्ञानअर्थव्यवस्था)

An economy in which growth primarily depends on the quantity, quality, and accessibility of useful information and the technologies based on it, instead of the traditional means of production(land, capital, labour and resources).

3.5 Scientific ecosystem (वैज्ञानिकआवासव्यवस्था)

A knowledge community of interacting individuals, institutions, associated policies and mechanisms in physical and/or cyber proximity, that facilitate sharing of resources to create, disseminate and use knowledge.

3.6 Scientific Temperament (वैज्ञानिकस्वभाव)

An approach to human and social existence that rejects dogma or assertion that contradicts empirical evidence or lacks a scientific basis, that habitually questions everything, that privileges logic and rationality, and is consistently self-critical.

3.7 Social entrepreneurship (सामाजिकउद्यमिता)

Initiating, sustaining and operating an innovative business enterprise that is driven primarily by a passion to advance a specific social cause rather than a profit motive, although the enterprise also seeks to be competitive and profitable.

4. Objectives

The main objective of SSR policy is to harness the voluntary potential that is latent in the country's scientific community to strengthen science and society linkages so as to make S&T ecosystem vibrant. This primarily involves bridging science-society, science-science and society-science gaps, thereby bringing trust, partnership and responsibility of science at an accelerated peace towards achieving social goals.

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[1] Explanations to 3.2: (1) Does not include students, including research scholars on fellowship. However, the ingenuity and enthusiasm of students can be utilized by knowledge institutions and their mentors, scientists, and advisors to great effect to carry out institutional SSR projects.(2) Knowledge workers in private educational and research institutions would be liable for individual SSR activity, exactly as their counterparts in the public sector. (3) Knowledge workers in companies and other commercial entities, whether public or private, will not be liable for SSR although they may voluntarily choose to do so.

[2] Explanation to 3.3: Does not include public and private companies, although they would be required to submit an annual report detailing their voluntary SSR activities, if any. However, MSMEs, Startups and informal sector enterprises would be exempted from annual SSR reporting.

This specifically implies:

1. **Science-society connect:** Facilitating inclusive and sustainable development by transferringthe benefits of scientific work to meet existing and emerging societal needs.
2. **Science-science connect:**Creating an enabling environment for the sharing of ideas and resources within the knowledge ecosystem.
3. **Society-science connect:**Collaborating with communities to identify problems and develop scientific and technological solutions.
4. **Cultural change:** Inculcating social responsibility among the individuals and institutions practicing science; creating awareness about SSR within society; and infusing scientific temperament into day-to-day social existence and interaction.

5.Stakeholders

SSR policy would involve four different categories of stakeholders: beneficiaries, implementers, assessors and supporters (BIAS).

5.1 Beneficiaries

Any community, group, entity or individual benefitting out of the SSR activity, including students; school/college teachers; local bodies; communities; women's groups; farmers; self-help groups; self-employed; informal sector enterprises; micro, small and medium enterprises (MSMEs); startups; non-governmental organizations (NGOs); *anganwadi* workers; bio-diversity management committees (BMCs);etc.

5.2 Implementers

Public and private knowledge institutions (laboratories, institutes, universities and colleges) and their knowledge workers, science centers, Central Ministries, State Governments, their departments and associated autonomous agencies.

5.3 Assessors

Internal assessment cell or external agency carrying out monitoring and assessment of SSR activities/projects at institutional, project and individual level.

5.4 Supporters

Any government agency providing grants exclusively for implementing SSR or as an incentive for implementing SSR, and funds provided as part of sponsored projects. Corporate bodies providing funds as part of their CSR requirements or in public-private partnership(PPP) mode, Non-Resident Indians (NRIs), Overseas Citizens of India (OCIs), alumni associations, or any other agency providing funds for the purpose are the supporting stakeholders.

6. Policy Directives

SSR is to be implemented through the following specific strategies:

1. All Central Government Ministries and State Governments would plan and strategise their SSR in accordance with their respective mandates.
2. Every knowledge institution would prepare its implementation plan for achieving its SSR goals.
3. All knowledge workers would be sensitised by their institutions about their ethical responsibility to contribute towards the betterment of society and the achievement of national developmental and environmental goals.
4. Every knowledge worker would be liable for at least 10 person-days of SSR per year. While the knowledge worker would be given wide latitude in choosing the SSR activity, it should necessarily pertain to the transmission of scientific knowledge to society.

5. There should be an SSR monitoring system in each institution to assess institutional projects and individual activities. Each knowledge institution would publish an annual SSR report.
6. Appropriate indicators for monitoring of SSR activities pertaining to input, process, output/outcomes for both at institution and individual level need to be developed. The impact of SSR activities needs to be measured in terms of short- term, medium- term and long-term time frames.
7. Individual and institutional SSR activities should be adequately incentivised, including with necessary budgetary support.
8. Individual SSR activities should be given due weightage in performance evaluation of the knowledge worker, such as the performance-based assessment system (PBAS) used to evaluate the output of university and college teachers.
9. SSR activities and projects of a knowledge institution would not be outsourced or sub-contracted.

7. Activities

SSR would consist of a number of different activities, as depicted below:
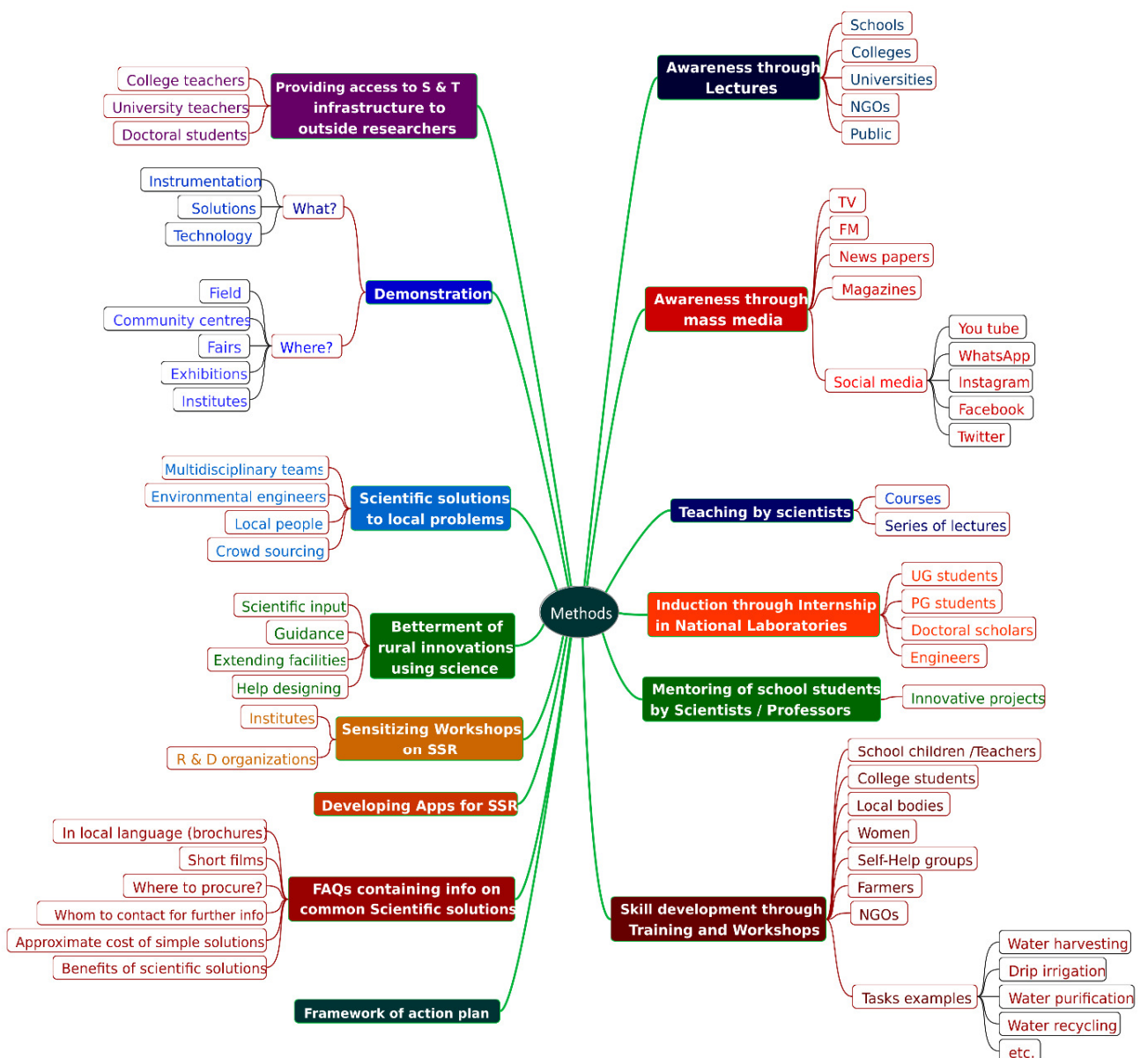
Illustrative list of SSR activities to be carried out by different categories of stakeholders include:

i) Lectures by scientists in schools and colleges on modular or full courses or on a theme for inspiring students to study science and take up career in science.

ii) Engagement and Training: Mentoring; internship; setting up displays in schools or for the public (museums, libraries), mentoring of school students in their innovation projects

iii) Setting up and maintaining interactive exhibits in schools or for the public (museums, libraries)

iv) Skill development through training and workshops

v) Sharing Infrastructure: Instruments; equipment; databases; research facility non-proprietary software; non-proprietary digital platforms

vi) Demonstration of solutions and technologies: Technical or scientific solution to local problem (environment, ecological, health, hygiene and similar); digital solutions for augmenting income.

vii) Working with innovators: Technical support to rural and local innovators; solving specific problem

viii) Scientific and Technological information in simple local language and disseminate though social media communication like articles and interviews.

ix) Training on high end scientific skills and research facilities.

x) Converting important research problem and/or the finding of the research work into popular science articles/ stories for newspapers/ magazines and other print and electronic media including social media. In-house competitions may be held to encourage this activity.

xi) Delivering scientific talks on popular theme (by TV, Radio, Newspapers, Magazines, Social Media, etc.) to remove superstition among society.

xii) Aiding NGOs in the use of S&T for societal challenges.

xiii) S&T based empowerment of women and weaker sections of the society by awareness building, training programs and use of S&T through appropriate NGOs towards livelihood generation.

8. Implementation

If a vibrant science-society link is to be established, the information asymmetries and uni-directionality would have to be mitigated. As a first step towards implementing SSR, a national digital portal would have to be established wherein societal needs requiring scientific interventions are captured and available for SSR implementers, in addition to providing a platform for reporting of SSR activities. A special purpose vehicle or body/agency needs to be established to take care of SSR policy implementation under the overall coordination of DST. This body will evolve suitable changes for guidelines on SSR from time to time taking into consideration the dynamic changes in the economic and scientific environment of the country. This body would be guided by an advisory committee/board comprising of diverse stakeholders from science and society.

Knowledge institutions and workers shall design their own action plan based on their overall SSR objectives and articulated social needs.

9. Resources

SSR activities and projects would need to be adequately incentivised, including with necessary budgetary support. Resources needed for the implementation of SSR activities would also include human resources (person-hours) and materials/infrastructure (instrument time). For funding agencies, three different schemes for supporting SSR can be envisaged: (a) funding per activity (the SERB model), (b) a fixed percentage of project budget or (c) depending upon the SSR activities proposed in the project proposal, the evaluating committee could recommend the SSR component of the project grant.

10. Benefits

SSR has the potential to bring scientific and innovative solutions to societal problems, especially marginalized sections of society, thereby transforming the country. Some of the envisioned benefits of SSR include:

- Expanding the domain of science and its benefits to the community. Encouraging students into science through handholding and nurturing their interest.

- Creating an opportunity for cooperation and sharing of S&T resources in laboratories with other researchers in universities and colleges.

- Providing training for skill development and upgrading scientific knowledge.

- Helping MSMEs, Startups and informal sector enterprises in increasing their overall productivity.

- Facilitating scientific intervention in rural innovation.

- Empowering women, disadvantaged and weaker sections society through scientific intervention.

- Identification of best practices and success models on SSR for replication with multiplier effect in the country.

- Facilitating actions towards addressing Technology Vision 2035 Prerogatives and Sustainable Development Goals (SDGs) of the country such as water, ecology, health and livelihood.

11.Conclusion

The policy envisages strengthening science-society linkages in an organic manner by building synergy among all the stakeholders so as to usher in a cultural change in the conduct of science for the benefit of society at large in the country.