DST-Centre for Policy Research

The Department of Science and Technology (DST), under the Ministry of Science of Science &Technology Government of India is mandated to develop and deliver public policy support for the promotion of research and development in the country. The Department is engaging itself in periodical dialogues and discussions with stakeholders, national and international experts and others to develop policy related papers. Global experience has shown that policy drivers influence the national capacities to gain competitiveness in the science, technology and innovation sector. Interconnections between knowledge and economy are emerging string globally. Policy research for a development sector like science and technology is becoming a National need. DST had established a dedicated "Policy Research Cell" which is actively engaged in to implementation of the measures and mechanisms contained in the Science Technology & Innovation Policy. Major objectives of the Policy Research include preparation of study reports on Science, Technology and Innovation.

The DST had established five Centres for Policy Research (CPR) at Indian Institute of Technology Delhi, Panjab University, Chandigarh, Babasaheb Bhimrao Ambedkar (Central) University (BBAU), Lucknow, Indian Institute of Science, Bangalore and Entrepreneurship Development Institute of India (EDII), Ahmadabad. The above DST-CPR are expected to serve as a knowledge partner of DST in the development of (a) Human capacity for science policy research, (b) Policy papers for wider study among the stack holders and (c) Enabling tools for the implementation mechanism for STI policy. Policy Research Cell had initiated STI Fellowships at post-doctoral level to generate a critical mass of policy researchers in the country. The DST-STI Policy Fellowship Program provides an opportunity to develop the skills for young scientists and engineers who are interested in engagement with the STI policy domain and/or as STI policy researchers.

DST-Centre for Policy Research

at

Babasaheb Bhimrao Ambedkar Central University,
Lucknow



BBAU, Lucknow

The Science, Technology and Innovation (STI) policy lays greater emphasis on improving innovation and involves a framework to enable the integration of innovation with science and technology for inclusive and sustainable growth. As the outcome of the STI policy 2013, five DST-Centres for Policy Research (CPRs) were established in 2014, namely at BBAU, Lucknow; IISc Bangalore; IIT Delhi; EDII Ahmadabad and PU Chandigarh, to carry out action oriented research and give policy suggestions to Government of India. DST-CPR, BBAU, Lucknow was created in 2014-15, by the support from Department of Science and Technology, Ministry of Science and Technology, Government of India. The 'DST-Centre for Policy Research' at BBAU Lucknow was inaugurated on 27th March 2014 during the second Lucknow Science Congress as one of the five centres funded by the DST. The Centre has established a state-of-art Policy Modelling Lab. The Centre has published policy papers and contributed to consultation on drafting of various National and State Policies. The Centre was instrumental in drafting the State Water Policy of Uttar Pradesh and is also working on two policy frameworks – National Irrigation Policy and Policy on Bio-pesticides.

1. Vision of the DST-CPR at BBAU

"Stimulate the strategic research and innovation capacity of the S&T sector to identify, foster and enhance key opportunities for addressing the 'quality of life –needs' for promoting social inclusion"

2. Focus Area

Study of policies and mechanisms that could facilitate delivery of STI outputs to diverse stakeholders including innovation for social inclusion (with special reference to sustainable agriculture, health care, water resource management)

3. Objectives

- Map STI effectiveness in bringing social inclusion in different regions of India;
- Identifying critical needs for STI across the range of areas that affect 'quality of life needs' of marginalized groups;

- To better understand linkages of STI and poverty alleviations and look for SIT avenues/intervention possibilities;
- Program Support to DST

4. Deliverables

- Examine policy gaps in the thematic areas attributes of policy relative to the welfare objectives -Design and conduct original empirical and normative policy research, including field work in the thematic areas;
- Develop strategies for correcting policy failures and design of appropriate interventions;
- Institutions, laws, incentives, policy instruments;
- Evidence-based practical foresight-related analyses for STI policy and research strategy development for social inclusion;
- Certificate program in Science & Technology Policy with possibility of initiating PG and doctoral programs at the end of the project.
- Conducting skilling / training workshops, to design STI Toolkit for Social Inclusion, Innovation Policy Guidebook for Policy-Makers, research papers and publish a series of best practice notes.

5. Key-Activities of the DST-CPR at BBAU: The Centre undertakes the following activities bringing together policy, academic and community expertise to inform and help shape current policy in science and technology sector in India.

- **Water:** Technology policy for safe water using 'system interventions' (e.g- policy interventions, institutional innovations, new approaches to shaping the innovation process)
- **Agriculture:** Policy for sustainable agriculture transformation for backward areas focusing on small holdings through technological & institutional innovations
- **Health:** Wide urban-rural gap in the availability of medical services: Inequity-how STI can bridge this gap?

6. Targeted study plans under different sections mentioned above

Water & Agriculture Sectors

(i) Conjunctive use of water resources in the Gomti River Basin for inclusive growth using STI Policy

(ii) Management of Groundwater in the stressed blocks of Uttar Pradesh through STI interventions

Ongoing Works: Analysis of change detection of Gomti River Basin along with hydro-climatic variables and comprehensive study of the Basin for sustainable development of water resource by developing well planned conjunctive use water management including irrigation system for inclusive growth using multi-temporal satellite data and socio-economic survey.

(iii) Sustainable Water Resource Management in Drought-prone Areas of Bundelkhand Region through Science, Technology and Innovation

Ongoing Works: finding gaps in term of technology application for water storage in drought prone areas of Bundelkhand region, creating pathways to solve issues related to water scarcity, water storage, and agriculture through STI for poor and marginal rural community people. Finding water storage structures best suited as per local technology and socio-economic dynamics depending upon site-specific characteristics. Study of policies related to drought areas for Bundelkhand district for overall inclusive growth of drought areas.

(iv) Comparative Study of Irrigation Water Use Efficiency in two different States in India and Implications for effective STI Policy

Ongoing Works: Study of difference in term of irrigation technology types and policy interventions between rich and poor states of India. To reduce a gap between rich and poor farmers in irrigation sector by streamline process of Science, Technology and Policy. Study of Irrigation Schemes of two different States under investigation to bring synergy through STI for diffusion in agriculture water resource management. Impact assessment of different irrigation technologies and finding best irrigation techniques based on local conditions in two states.

Health Sector

(v) Science, Technology and Innovation for Inclusive Healthcare among Urban Poor and Rural Communities

Major research issues to be examined: STI for inclusion of health care among urban poor and rural communities

The focus of the project is to examine how healthcare technologies can be utilised for the inclusion of urban poor and rural communities. It will also analyze the dynamics

of various stakeholders with the community and healthcare technologies for policy formulation for inclusive growth. The main objectives of the project are: To assess the accessibility and usage of quality health services, to map out the management of vector borne diseases which affects the population in rural areas of Uttar Pradesh, to examine the associations of the various layers of governing bodies in relation to healthcare and to contemplate the collaboration of community and governing bodies with respect to healthcare technologies.

(a) access and utilization of quality health services
(b) partnership between the Central, state and the local governments – mainly policy convergence/conflicts
(c) platform for involving the Urban Local Bodies and community in the management of primary health Programs and infrastructure
(d) equity and social justice issues in the delivery of HCT (Health Care Technologies) – poor versus rich
(e) flexibility to the states and the community to promote local initiatives – examples of some specific local innovations
(f) promoting inter-sectoral convergence for promotive and preventive health care
(g) estimate the disease burden and finding the prevalence of major diseases/health issues
(h) STI for management of vector borne diseases namely Malaria, Kala-Azar, dengue, Japanese Encephalitis, and Lymphatic Filariasis in urban poor and rural communities

Target Group: urban poor and rural communities and all other related stakeholders