

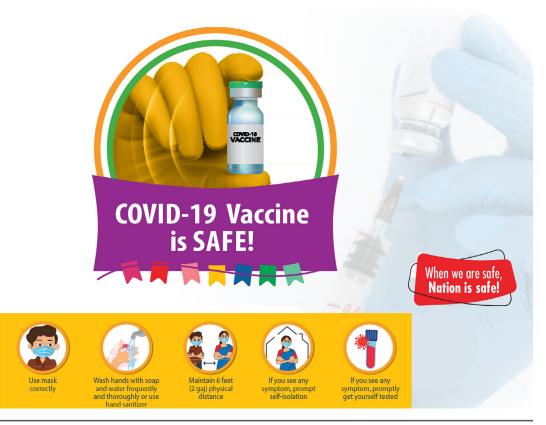


COVERSTORY: Natural resources and tribal communities in India

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Natural resources and tribal communities in India

Tribes in India are known as Scheduled Tribes under the Constitution of India. They constitute 8.6 per cent of the nation's total population, according to the 2011 census with over 104 million people. According to the Anthropological Survey of India, there are 461 tribal communities in India. These communities are in underdeveloped state due to lack of formal education, malnutrition, infrastructure, and poor health facilities, etc. They utilise natural

health facilities, etc. They utilise natural resources like land, water and forest for their sustenance with traditional cultural knowledge. In spite of rich cultural tradition with plentiful of natural resources, they hardly meet the requirement of a healthy living standard. So, it is high time to adopt a different development approach by the planners, which would help out to distinguish communities' requirement and their understanding in the context of managing natural resources.

In order to incorporate cultural and environmental considerations in tribal development, there is probably a need for formulating a comprehensive strategy for natural resource-based development planning and management. This will provide a broad normative framework for resource planning and development based on the involvement of the community by considering their cultural perceptions and values. This article highlights the traditional and cultural rights of the tribal community to manage natural resources, such as land, water and forest.

Natural resources are respected in the form of supernatural beings. If resources are to be appropriated and used sustainably, these beings have to be appeased in culturally prescribed ways.

In the process of livelihood production various communities across the world have evolved their own social institutions and cultural mechanisms for utilising their natural resources. Very often this utilisation process of natural resources forms an integral part of their culture. Anthropologists are in a privileged position to study the social and cultural mechanisms by

which communities have managed their natural resources. Natural resources available within the village are accessible to the whole community and to which no individual has exclusive property rights. This is known as common property resources (CPR). This includes village pastures, community forests, wastelands, common threshing grounds, waste dumping places, watershed, drainage, village ponds, tanks, rivers/ rivulets, and river beds, etc. Its survival depends upon the character of the communities and the institutions that have evolved around CPRs. These local natural resources are of more social, cultural and economic value to the needy population, and are vital assets in the form of livelihood support for the community. These properties are not openly accessible and outside communities are not allowed to use these resources.

These community properties are under crisis due to outsiders' involvement in the form of privatisation, encroachment, and development leading to depletion of resources and





Meeting of village elders at Mandaghara (the community house), after the day's work

decline of its management. Several scholars have proposed that for the management of natural resources, participation of the local people is required. Management in this context implies human intervention in resource system with a view to restoring and conserving it, or to sustaining its productivity, and regulating its use. The intervention could be in the form of application of labour and material inputs, creation of institutions or modification of existing institutions and enhancement of laws.

Scholars in their study investigated that, to manage these natural resources how communities use their cultural knowledge in a continued way. People adjust to natural changes by using their cultural knowledge. In a natural setting, people negotiate regularly with nature using this knowledge to sustain their livelihoods. However, when people are introduced to new interventions, the relationship between people and their resource alters. It leads to a break in the nature culture relationship. People are forced to adopt a new setting which is unfamiliar to them. This has serious implication for both people and the environment. This leads to depletion of community's natural resources.

The depletion of natural resources

and its impact on the local communities were highlighted by a number of scholars. They clearly point out that development of a uniform process of reduction in diversity leads to resource depletion and decline in traditional management systems of resources. It is ultimately leading to destruction of traditional institutional arrangements, which facilitated the sustainable use of resources earlier.

One of the reasons for deterioration natural resources is outsiders' intervention on local resources. Increased uncertainty in the property rights is another reason. Suppose a community thinks that they together own the forest which their forefathers passed on to them, but if they do not possess any legal document regarding the forest, its rights to the resources are insecure. When people are uncertain, of their rights to a piece of property, they hesitate to make the investments to protect and improve it. If the security of natural resources is uncertain then the collective responsibility of the people and its management system may collapse.

Another reason for the degradation of natural resources according to various researchers, is that management practices at the local level are sometimes reversed by governing authority. It is found that a

number of States in the Sahel, Western Africa, for example, imposed rules, that in effect destroyed communal management practices in the forests. Villagers stopped operating their authority to punish those who violated locally instituted rules.

Researchers found that social norms of behaviour, established on reciprocity, can be breakable. Institutions based on reciprocity are fragile for private investment in substitute resources. It is a situation where institutions deteriorate when traditional systems of management collapse and are not replaced by institutions that can act as substitutes, the resource users become neglected. Research on this found that one of the oldest sources of irrigation in a sample village in southern India, 'village tank', deteriorated over the years due to a gradual decline in collective investment in their maintenance.

Pieces of research evidence reflected that natural resources use to be declined in consequence with economic development. For example, it is proved that a study of the privatisation of the common grazing lands among the Orma in north-eastern Kenya established that the transformation took place with the consent of the elders of the tribe. The study endorsed this to cheaper transportation and widening markets,



which made private ownership of land more profitable. It is found that the elders were from the economically stronger families. So, it is found that privatisation brought out inequality within the tribe. In view of this, designing and adopting new institutions to solve resource problems is a difficult task, no matter how homogeneous the group is, how well informed those members are about the conditions of their resources, and how deep-rooted are the generalised norms of reciprocity.

Hence, looking at the above reasons, the arising question is how to prevent this degradation of resources when the carrying capacity is mounting. The rapid population growth can trigger resource depletion, if institutional practices are unable to adapt to the increased pressure on resources. The growth in rural population has been accompanied by the increased deforestation and reduced fallows.

Keeping the above questions in mind we have tried to understand tribals' perception towards common property, property and government property in relation to their natural environment. A structure is adopted in this article which assumes that the tribals. who utilise natural resources, have their own logic in considering a resource as communal property, in contrast to the understanding of the government, and in the utilisation and management of such resources. This operates on the internal logic of the community that uses natural resources. This logic is hinged to their perception, management and resource utilisation. Natural resources are respected in the form of supernatural beings. If resources are to be appropriated and used sustainably, these beings have to be appeased in culturally prescribed



Top part of the photo shows degraded forest cover, the yellow patches on the right, left and centre are til, mustard and paddy crop fields, respectively

ways. The logic of the tribal communities for that matter in the utilisation of such resources is misunderstood by the State development authorities. The authorities constantly attempt to regulate community's use of resources. Further, the authorities introduce development programmes without considering community's logic of resource use. In order to grasp how people perceive, utilise and manage natural resources, an understanding of the user's logic becomes essential to prevent further depletion of resources.

The article further assumes that outside interventions affect the community's ownership and their utilisation over natural resource. Hence, people negotiate with the changing circumstances to utilise the resources. In the process they redefine their relationship with natural resources by perceiving the States property as communal property. Government proposes that the community has lost their ownership over natural resources as these resources belong to the State, but people feel the moral responsibility to take care of the resources available within their reach, as they earn their livelihood from them. Hence, they have an interest

in their upkeep and conservation.

In the changing situation, the resource use pattern by the tribals though has not changed, the form of use has changed. Some of the resources have acquired monetary value in the market. They use the new resources and accommodate them in their cultural knowledge using their cultural logic, thereby making it normatively accepted. They extend their belief, faith, rituals and gratitude to the new resources and by this process they make it fit into their system. In order to avoid the cultural imbalance within the community and environment, any aspect taken out of its context needs to be replaced by another cultural mechanism. Development measures have to progress along people's logic of resource use, if new intervention has to become operational and participatory. Anything new to the community should be demonstrated to people in a way that they can culturally adjust.

Dr. Satya Ranjan Mahakul

Assistant Professor Centre for Equity & Social Development NIRDPR

Cover page design: Shri V.G. Bhat

Capacity building training programme for strengthening of CRPs, SHGs, VOs and BLFs



 $Dr. G. Narendra Kumar, IAS, Director General, NIRDPR (<math>5^{th}$ from the left) during his interaction with the NCRPs

een Dayal Antyodaya Yojana -National Rural Livelihoods Mission, Resource Cell (DAY-NRLM RC), National Institute of Rural Development and Panchayati Raj (NIRDPR), Hyderabad organised a thirteen days' capacity building training programme in two batches for internal community resource person (iCRP) and village organisation (VO), Office Bearers (OB) and Executive Committee (EC) members with the support of Andaman and Nicobar Islands Rural Livelihood Mission Directorate of Rural Development, Panchayati Raj Institutions and Urban Local Bodies, (ULBs) Port Blair.

NIRDPR, NRLM-RC has been supporting ANISRLM since its inception,

and various capacity building programmes have been organised for different stakeholders.

As a part of its capacity building activities, the NRLM-RC deployed 18 National Community Resource Persons (NCRPs) in six blocks, namely Portrapur, Ferrarjang, Little Andaman, Mayabandar, Diglipur and Rangat.

A total of 1,132 participants from more than 74 Panchayats participated in the training during the first phase. The training was organised in two phases. During the first phase (3rd-15th February 2021), iCRPs refresher training on governance and financial management, Standard Operating Procedure (SOP) for Village Organisation (VO) office bearers

(OB) and Executive Committee (EC) members and training on BLF formation process were organised. In the second phase training on SHG and VO books of accounts and audit is in progress. NCRP formed five block-level federations in these five blocks of Andaman and Nicobar Islands.

Dr. G. Narendra Kumar, IAS, Director General, NIRDPR interacted with National Community Resource Persons (NCRP) deputed to Andaman & Nicobar Islands from 3rd to 15th February, 2021 and appreciated their work.

The Director General recommended to extend activities such as refresher training to iCRPs, training to village organisation (VO), office bearers (OB) and executive committee (EC) members on Standard Operating Procedure (SOP), Governance and Financial, and training on book, audit, etc., to other Union Territories. He also suggested to utilise their services in model CLF formation and expand the NCRPs pool from 70 to 100. The programme was coordinated by Dr. Y. Ramana Reddy, Director, Shri Ravindra, Mission Manager Ms. Shefali, Young Professional, DAY-NRLM RC, NIRDPR.



A session during VO-EC training (Rajgat, A&N Islands)

Regional collaborative online ToT on Social Accountability Tools for Good Governance



A slide presented during the online ToT on Social Accountability Tools for Good Governance

two weeks regional collaborative online training of trainers (ToT) programme on 'Social Accountability Tools for Good Governance' was organsied by the Centre for Good Governance and Policy Analysis (CGGPA), National Institute of Rural Development and Panchayati Raj, Hyderabad during 15th -26th February, 2021 in collaboration with the Department of Interdisciplinary Studies, Himachal Pradesh University (DIS-HPU).

Good Governance is the processes for making and implementing decisions. It's not about making 'correct' decisions, but about the best possible process for making those decisions. Good Governance is a combination of characteristics like accountability, transparency, following the rule of law, responsiveness, equitable and inclusive, effective and efficient and participatory.

Public Policy is formulated and implemented in order to ensure social economic benefits in welfare state. Public policy is an integral part of governance which touches upon critical analysis and then to ensure efficient governance.

Social Accountability can be defined as an approach towards building accountability that relies on civic engagement, i.e., in which it is ordinary

citizens and/or civil society organisations who participate directly or indirectly in exacting accountability (World Bank, 2004). The aim of this civic engagement is to stimulate demand from citizens and thus put pressure on the state or private sector to meet their obligations, to provide quality services. The supply side of this equation is about building state capability and responsiveness, while implementing different stages of the public financial management cycle.

Social Accountability Tools enable development practitioners with the knowledge to generate demand and ultimately improve governance at the local, regional, and national levels. Social accountability tools are essential for learning, as many of the public policies are increasingly goal oriented, aiming for measureable results and goals and decision centric.

Thus the online ToT on Social Accountability Tools for Good Governance aimed at addressing the following objectives.

- To expose participants to the concept of welfare state and its policies
- To identify governance deficits and gaps in existing policies
- To enable participants to learn different social accountability tools

- To apply those tools for analysing existing flagship programmes of rural development
- To verify and establish the tools
- To make the participants equipped with knowledge and skills for social accountability tools for better service delivery.
- This specialisation will give the participants knowledge and tools that an organisation needs to record and produce professionalism in dispensing public services
- The participants will learn the technical aspects of assessing public issues, including the involvement of stakeholders
- The application of tools stimulate achievement of goals, fulfilment of duties and responsibilities and promote public faith and trust in public office
- The sponsoring orgnisation will obtain identity and improved vision

The training programmes focused to cover the following modules:

- Concept, approaches and elements of good governance
- Concepts, approaches, rational and tools of social accountability

- Application of social accountability tools techniques -Right to Information Act (RTI)
- Application of social accountability tools techniques - social audits
- Application of social accountability tools techniques – community score card (CSC)
- Application of social accountability tools techniques – budget analysis, fund utilisation and participatory budgeting
- Application of social accountability tools techniques – citizen report card (CRC)

programme was scheduled cover different topics related to 'Social Accountability Tools for Good Governance' by different subject experts covering the scope and need of ToT Programme; Need and significance of Good Governance, Significance of Good Governance, - and elements of good governance; Social accountability tools - Budget Analysis; Fund Utlisation; Participatory budgeting; Public Expenditure Tracking Surveys (PETS); Right to Information Act (RTI); Social Audits; Community Score Card- Describe the CSC tool & Six key steps: Preparatory Groundwork; Input-Tracking Scorecard; Performance Score Card by the Community; Self-Evaluation Score Card by Service Providers;

Citizen Report Cards :Areas of concern	
Citizen Report Card	Community Scorecard
Assumes basic skills of survey and advocacy within the implementing group Survey costs can limit repeated applications Technical steps quite critical for credibility Reforms and changes take time Weak community interfaces	 Quality of facilitation extremely critical Input tracking dependent on availability of supply-side data Interface meetings can get confrontational Difficult to aggregate individual scorecards Sample sizes can bias feedback

A slide from the webinar

Interface Meeting and Action Planning; Institutionalisation and Introduction to Citizen Report Card (CRC), Context & Rationale, Features, Applications, CRC Methodology, Designing a CRC – The Science of Survey; Disseminating CRC findings, Tips for effective advocacy, Data collection for CRC & Data Analysis, etc., for each topic quiz, MCQ tests and assignments were given and accordingly participants succeeded in attempting all.

Totally, 70 participants including faculty members, MBA-Rural Development students (Frist and Third semester), MPhil and Ph.D scholars from Department of Interdisciplinary Studies, Himachal Pradesh University (DIS-HPU), NGOs, and CBOs members participated in the programme. During the inaugural, Prof. Parkash Chandel, Director, Department of Interdisciplinary Studies-IIHS highlighted the importance of social accountability tools with respect to good governance. He also instructed the participants how these tools can be used for social change and for promoting good governance in rural areas.

The training programme contents were delivered through a judicious mix of lecture cum discussion, sharing the best case studies for all the discussed tools, role playing, debate, etc.

On the final day, participants made their presentation on their learnings from the ToT and shared their future plan of action against key learning from the ToT.

Dr. K. Prabhakar, Assistant Professor, Centre for Good Governance & Policy analysis (CGGPA) organised the training programme.

Online training of State level master trainers on preparation of District Panchayat Development Plan

entre for Panchayati Raj,
Decentralised Planning and Social
Service Delivery, NIRDPR organised a
one-day online training programme
on preparation of District Panchayat
Development Plan (DPDP) for the
State level master trainers and State
nodal officers of 31 States and Union
Territories on 17th February, 2021. The
training was aimed to orient the State
level master trainers' teams on the

context and importance of planning at the District Panchayat level and to guide them in understanding the focus, steps, and methodology of preparation of DPDP.

Addressing the participants, Dr. Chandra Sekhar Kumar, Additional Secretary, Ministry of Panchayati Raj highlighted the need for realising the autonomy of all three tiers of Panchayats. He emphasised that it took nearly 30 years for introducing the culture of planning at the GP level and it is now that we have taken our first step towards Block Panchayat Development Plan (BPDP) and DPDP. He proposed six points for effective implementation of DPDP such as preparation of resource envelope, integration of GPDP issues and BPDP issues in DPDP, the inclusion of service delivery in all three tiers, own source revenue, e-governance in all three tiers and set up of control rooms in all levels.

Implementation of SDG



A slide from the training prgramme on preparation of District Panchayat Development Plan(DPDP)

The training programme covered the following topics: i) localising SDGs and their integration into DPDP, ii) collection and consolidation of data emanating from BPDPs, Census, SECC, MA, GIS, line departments, and primary data of District Panchayats, iii) important schemes, sectors, themes, and issues for their integration in DPDP, iv) guiding principles, focus, steps, and methodology of preparation of DPDP in an integrated, convergent and qualitative manner; v) utilisation of e-Gram Swaraj Portal of the MoPR for DPDP, vi) challenges of BPDP-based DPDP and responsibilities of various institutions/stakeholders.

During the interactions, the participants raised various issues about the low involvement of line departments, the own source revenue (OSR) generation and resource envelope in the planning process. All the issues were answered in detail with examples by resource persons.

At the end of the training programme, most of the participants shared positive response towards DPDP preparation in their States. Ms. Sunita Das a State level master trainer from Andaman Nicobar expressed that the training programme was good and topics were well covered with emphasis on the steps for preparation and formulation of DPDP.

The programme was coordinated by Dr. Anjan Kumar Bhanja, Associate Professor, CPRDP&SSD, NIRDPR, Shri. Dilip Kumar Pal, Project Team Leader for Model GP Clusters, CPRDP&SSD, NIRDPR, and project management unit team for Model GP Clusters.

COVID-19 Assistance Programme for rural entrepreneurs



Smt. Mithila Majhi at her grocery store

Intrepreneurs across the sectors have been affected by COVID-19 pandemic. The growth prospects of many rural entrepreneurs like Smt. Mithila Majhi from Gaigaon Gram Panchayt, Kesinga Block, Kalahandi district was disrupted. She earned an income of Rs. 20,000 per annum which comprised the corn and rice yields. Her husband Shri Mukteshwar Majhi earned a sum of Rs. 40,000 per annum from his seasonal business. In addition to this, he also used to earn Rs. 90,000 from the grocery business.

With a limited income at their disposal, life was not easy as they had to

meet the costs of medicines, education of their children and other basic needs. After being motivated by the CRP concerned, Smt. Mithila Majhi joined an SHG. Despite earning low income, she realised the value and importance of savings, after her involvement and participation in the financial management training imparted by the SHG. After joining the SHG she even came to know the uses and utility of her bank account and started saving money

Mrs. Majhi took a loan from the SHG through proper channel after the preparation of Micro Investment Plan by the CLF concerned. Bhudha Raja SHG provided her a loan to re-strengthen the grocery shop business through Cluster Level Federation & Gram Panchayat Level Federation. She invested the loan amount to increase the stock in grocery shop.

Usually, Mrs. Mahji manages the shop while her husband is busy in farming and looking after seasonal business. During COVID-19 pandemic, her husband's seasonal business did not run smoothly. Even the daily regular income from the grocery shop went down. In the meantime, the family had invested entire money in corn farming. Without any income, they faced several financial hardships. During the pandemic they bore a loss of Rs.250 per day since they were bound to close their shop for two months due to the strict COVID-19 guidelines issued by the government. Their financial condition deteriorated to such an extent that they could not even manage to gather a square meal for their family.

After realising the gravity of their situation and the financial condition of the family, the SHG members passed a resolution through the GPLF meeting and sanctioned a loan of Rs. 20,000 to Smt. Mithila Majhi under COVID-19 Assistance Programme (CAP) on 13th October, 2020.

She invested the money in her

grocery shop and at present her husband is also engaged in procuring rice as his seasonal business.

The sales have increased and she is making a good profit and earning Rs. 300 per day from sales. She further plans to expand her sales by adding few fancy items to her shop. She is thankful to the organisation for the timely financial

assistance from GPLF and Odisha Livelihoods Misson (OLM).

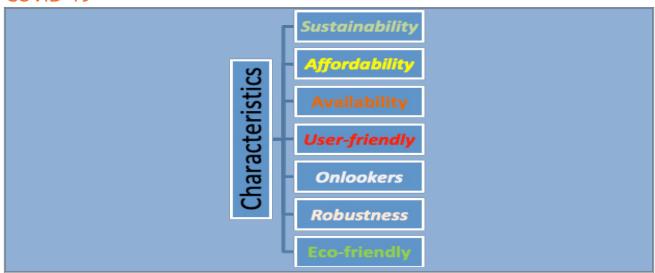
Shri Somya Ranjan Mahapatra,

Block Project Manager, Kesinga Block, Kalahandi District

Shri Anurag Kushwaha,

Former Young Professional, Odisha Livelihoods Misson

Frugal Innovations and Rural Entrepreneurship – healthcare scenario post COVID-19



nnovation is seen as a crucial vehicle for increasing India's growth helping reduce poverty, and improving living standards. Frugal innovation is the gutsy art of spotting opportunities in the most adverse circumstances and resourcefully improvising using simple means and doing more with less. Nearly 90 per cent of India's workforce is employed in the informal sector, which is typically characterised by low productivity and low-skill activities, and a majority of 60 per cent is employed in the informal agriculture sector. India would thus benefit from encouraging rural level innovation by promoting creative efforts by the people from less privileged backgrounds.

Frugal innovation means the ability to provide safe and affordable healthcare in the best way possible. Under given circumstances and constraints in healthcare, it does not mean low quality. The word 'jugaad' evokes the images of unrehearsed contraptions and their

varied quixotic and unforeseen usages, such as a very basic washing machine that is used to make *lassi* (curd based drink) in Punjab, or a bicycle commonly used for the mechanised sharpening of knives in the city lanes by full-time professionals.

Some innovators have changed such conditions. For instance, Dr. P. K. Sethi, who co-invented the Jaipur Foot, also known as the Jaipur Leg, is a rubber-based prosthetic leg for the people with below-knee amputation.

Similarly, MittiCool company founded by Mansukh Bhai Prajapati harnessed the cooling properties of clay and created a low-cost kitchenware, bio-degradable refrigerator made out of clay.

Ms. Nirmala Kandalgaonkar, an entreprenuer founded a reliable waste management company called 'Vivam Agrotech' that is functional in the areas of vermin-compost, compost, biogas with electricity generation, carbon credits, municipal solid waste management, and wastewater treatment. In the

international market, sports shoes are being manufactured with recycled plastic by Adidas, Rothy's and Veja keeping millions of discarded bottles out of our oceans.

Given the current public-health crisis, frugal innovation provides opportunities to expand access to care. While there is a predominant emphasis on affordability and low cost in frugal innovation, there are many other associated drivers, competencies and dimensions.

The three approaches which help in relating with the examples encountered thus far in responding to the COVID-19 threat are repurposing, reuse and rapid deployment.

Kerala Start-up Mission (KSUM), a government-supported entrepreneurship development agency, has launched initiatives such as 'Breath of Hope' which brings together an interdisciplinary volunteer team of IT professionals, biomedical engineers and doctors to develop innovative medical

devices. Start-ups such as Asimov Robotics and QKopy are part of KSUM.

The physical barrier to co-creation posed by social distancing has been mitigated partly through the greater use of digital tools. Around the world, social distancing and contact tracing have been the buzzwords in response to COVID-19. A particular problem, as lockdown began to ease, will be how to stop the virus spreading in public spaces such as airports or bus stations.

Asimov Robotics, a start-up based in Kerala, has deployed robots at entrances of the office buildings and other public places to dispense hand sanitiser and deliver public health messages about the virus. Robots developed by Asimov Robotics are also being deployed in isolation wards in hospital to carry food and medicines, which eases the pressure on medical staff.

In response to the shortage of ventilators for critical care, start-ups such as Nocca Robotics (incubated at Indian Institute of Technology IIT-Kanpur), Aerobiosys Innovations (incubated at IIT-Hyderabad) and AgVa Healthcare are developing low-cost, easy-to-use and portable ventilators that can be deployed even in rural areas of India. These ventilators would need medical regulatory approval before they could be deployed. Start-ups including KlinicApp and Practo, are providing COVID-19 tests at home and online consultation with doctors through their platform.

Droom, another startup, claims it has come up with a special anti-microbial coating called Corono Shield, which inhibits the growth of microorganisms such as bacteria, algae, yeast moulds, and mildew on the surfaces of vehicles. It is being tested by police in Gurugram in Haryana State. Selection of notable frugal innovation responses in the COVID-19 pandemic are hydroxychloroquine, Ventilator multipliers, portable and opensource designs of ventilators, face masks and visors, aerosol boxes for intubation, task shifting in ICUs, CHW-led response at community level, DIY face masks, selfproning ventilation & frugal ventilator machines.

How to leverage frugal innovations?

The COVID-19 led crisis has raised endless challenges for firms trying to grapple with the supply disruptions, and at the same time, to secure their future. The past few months revealed the importance of innovation in tackling various facets of the pandemic, such as search for vaccine and testing kits, adoption and availability of digital consumption for entertainment, education, e-commerce and mobility. Though the crisis has stimulated renewed interest in innovation as a means of overcoming the various disruptions created by the pandemic, concerns are being raised about the financing of such innovative activities and also means of leveraging and replicating it.

In addition, the crisis has put enormous strain on public and private avenues for financing innovation. Further, faced with declining revenue, uncertainty induced by the pandemic may push banks and investors towards more risk-averse alternatives. This will severely reduce the external sources of financing available to innovative firms leading to reduced expenditure in research and development (R&D). Since much of the outcomes of the innovation are in the form of creation of intangible assets, obtaining finance from capital markets, especially in developing economies, is difficult.

In the contemporary times, with the

fiscal slippages facing all the economies including India, the remaining key question is whether we are going to witness a change in the source of finances for innovative actions. During the past two decades, India managed to build a robust innovative ecosystem driven by around 50,000 start-ups in the country, making it the third largest start-up economy. The recently launched Global Innovation Index (GII) 2020 report ranks India at the 48th position with the country breaking into the top 50 for the first time ever.

The Gross Expenditure on R&D (GERD) in the country has been consistently increasing over the years and has nearly tripled from Rs. 39,437.77 crore in 2007-08 to Rs.1,13,825.03 crore in 2017-18. It is estimated to be Rs. 1,23,847.70 crore in 2018-19.

Several significant initiatives for propelling innovation, such as the Start-up India initiative, Accelerating Growth of New India's Innovations (AGNIi), Atal Tinkering Labs, new intellectual property rights (IPR) policy, Smart City Mission, Uchchatar Avishkaar Yojana, etc. All these initiatives, coupled with phenomenal research and innovation from the institutions, industry, and society, are cementing India's position as an innovation and knowledge hub.

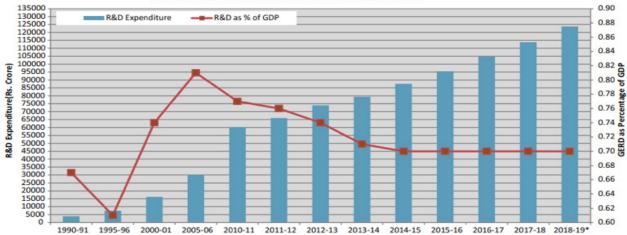
National Institute of Rural Development and Panchayati Raj is partnering with Indian National Academy of Engineering (INAE), Vijnana Bharati to encourage and support the rural

India's Global Innovation Index (GII) rank.



Source: Calculated from annual reports of India Innovation Index-2014-20

NATIONAL R&D EXPENDITURE AND ITS PERCENTAGE WITH GDP



The Gross Expenditure on R&D (GERD)

innovators, create greater awareness on such innovations, and organising the workshop on 'Frugal Innovations' to provide an inclusive the platform for ideas, innovations for facilitating new business models, and workout the way forward with possible mentoring support by the expert members of INAE.

Frugal Innovations in the field of public health could be an effective strategy in providing safe and affordable health care services both in rural and urban areas. However, the outreach of successful frugal innovations is very limited in rural areas and mostly remained in the lab, due to lack of support. The time has come to promote frugal innovations with greater commitment and enthusiasm. With growing importance of 'vocal for local', a new cadre of entrepreneurs can be created in rural areas with their existing knowledge and

expertise. Various institutions operating on entrepreneurship development landscape must unite and create an enabling environment not only for the new innovators but also help graduate or scale up the existing ones.

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