

Minds that Matter: Grassroots Innovations for Inclusive Rural Development¹

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Shri Bhausahab Santuji Thorat belongs to a generation that lived in practice. How else can one be authentic? Having trained more than 10000 students in the technology institutions set up by him and having planted more than a million trees through widespread community participation, he could be called as broadcaster of dreams and aspirations. The challenge really is to ask ourselves whether this tradition of authentic pursuit of an inclusive social vision cannot be made more viable and vibrant for our future generation. I will share my own learning and insights from the creative margins of our country to illustrate that social utopia is not dead yet, no matter what some scholars may say about the death of ideology. Let me share some of the lessons learnt from knowledge rich, economically poor people who have not yet become the point of reference either in the policy or programme design.

Managing dissent is the core of unleashing creativity: Roots of conformity, compliance, and congruence as desirable traits of Indian culture

Every time an innovator breaks out of the mould or the tradition, he expresses his dissent with the prevailing level of inertia. A culture, which promotes conformity and compliance, is unlikely to easily encourage or even tolerate such dissent. The culture in such cases becomes culprit. If we take an example of Eklavya whose story has been heard by almost every child in different parts of the country, it is always taught to inculcate the value of deference and of course persistence. I am not so sure our children will ever respect a teacher like Dronacharya and yet they live with this paradox. A reinterpretation of such fables is in order if the value of persistence with passion and autonomy have to become pervasive. Many innovators work in the night when their family is asleep. Some don't even share their ideas with neighbours expecting ridicule and criticism. In a few cases, even if they are willing, their neighbours are not. Why has curiosity been subdued so much. The very fact that majority of the grassroots innovators are school or college dropouts illustrates the situation about the education system. Gandhiji is said to have appreciated the value of folk high schools for farmers' children in Denmark before setting up Gram Vidyapiths in Gujarat. But such continuing educational institutions are not part of the planning process today. The community workshops for innovators to fine tune their skills and

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provide opportunities for collaborative learning, fabrication and small-scale manufacturing have just been set up by NIF [National Innovation Foundation] on experiment basis. Nurturing creativity at grassroots requires much richer eco system than is prevalent today. Every technical institution, be it ITI, polytechnic or degree colleges of engineering, pharmacy, agriculture biotechnology, etc., should provide facilities for individual innovators from informal sector to use their facilities for developing and/or testing prototypes. Similarly, for farmers who have developed herbal formulations for pest control, veterinary medicine or human ailments should have the opportunity to get their ideas tested at much larger scale than what NIF is able to offer. Out of more than 160,000 ideas, innovations and traditional knowledge practices mobilized by NIF with the help of Honey Bee Network, the current resources will not permit testing of more than a few hundred claims. It will take centuries before justice is done to most of the deserving technological claims. If knowledge of people is not the pivot for developing technological and entrepreneurial options, the claims about inclusive development should be abandoned. However, in a country where under major developmental programmes such as Rural Employment Guarantee Schmes, 250 million poor people are supposed to have only hands, mouths or legs but no head, such neglect of people's knowledge is not surprising. At the same time, it is very gratifying that Hon'ble President, Smt. Pratibha Patil has not only created new benchmarks of acknowledging grassroots innovations but also honouring them. She has been hosting exhibition of grassroots innovations at President's house [perhaps the only head of the state to do so] and this time also conferred the biennial awards at Rashtrapati Bhawan. Such encouragement does motivate the innovators and makes them feel, that their minds do matter.

The irony is that about 150 years ago, when slaves were sold in England, there was an attempt by some sellers to highlight the creative and innovative capabilities of the slaves being sold. Today, in a democratic society, we feel so hesitant in acknowledging the resources in which poor people are rich such as their knowledge, values, institutions and ethics.

A roadmap for rethinking rural development options cannot be developed without building upon the creative and innovative potential of local communities, youth, women and of course, the elderly population. Let me illustrate.

Cultural creativity:

There is no region of our country where there are no unique knowledge systems about music, art, folklore, traditional food, games, architecture, etc. And yet, none of these strengths are tapped while identifying decentralized opportunities for value addition, job generation through entrepreneurial ventures. If a

community is famous for certain art forms, creating site having videos and audios of such performances or creations can generate global market for some of the creations. With e-commerce enabled platforms, an artist becomes a potential entrepreneur and thus may receive patronage from the market. Every download may generate a Re. or less or income for the artist. This will create millions of cultural entrepreneurs who are forced to do so-called unskilled labour disregarding their cultural distinctions. A society, which does not treasure the culture of common people, may eventually become a cultural desert. Aren't we getting closer to it?

The culinary diversity if endowed with nutritional information can fuel the market for functional foods and nutraceuticals. This may also provide incentives for conservation of biodiversity. The cultural and culinary diversity are deeply correlated. An inclusive society has to tolerate and encourage diversity in every institution. Many of the traditional crafts can become the pivot for modern industrial and urban demand. The blend of modern and informal science can produce viable options for future. The Kolhapuri chappals valorized by CLRI technology found much more expanded market than would have been the case otherwise. Toehold collective in Karnataka has also benefitted from similar tieups. But, such blending of excellence in formal and informal sector is rare and is not the part of 12th Five Year Plan in any significant sense. Such linkages not only generate viable opportunities for the craft men and women but also humanize the science and technology institutions.

If every public and private building is obliged to provide some space on its public wall for depicting one of the folkloric hand made art, we can generate enough market opportunities for the dying folk arts. The employment programmes need not include only digging of earth or breaking stones. These could also include sculpting stones, making clay models, art work on public buildings, walls, or spaces. This will enrich the quality of life of the society and may make the mind more accommodative of diverse traditions. In a time when most urban youth listen to the same music, read the same novels and view the same movies, creating diversity of thinking and actions is not going to be easy. But it is a task very fundamental to the maintenance of secular fabric of our country.

Educational creativity:

The performance of government schools has been found highly inadequate in most parts of the country. The private schools are unwilling to provide even 25 per cent seats for the disadvantaged children. Government does not plan to open Navodaya Vidyalays in every block of the country. Under such a situation, the

hope for those children who have nowhere else to go but to government schools lies in the creativity and commitment of the devoted teachers. Such teachers do exist but the policy and the institutions have not found a way of building upon their creative repertoire. During thousands of kms., of Shodhyatra we came across only one government school in Nashik, on the wall of which the names of the students who achieved some distinction in life were written. Every day when children entered the primary school, they saw the names of those who by studying in such a school had made a place for themselves in the world. There was no doubt that some would get inspired to do better. An education system that does not breed hope and instill fortitudinous capacity cannot ever serve the real interest of the society. Why then we don't have a national database of such innovative teachers from around the country. I can recount large number of stories of such teachers who have gone beyond the call of their duty and created new benchmarks of creativity, commitment and compassion. It is such teachers who have a right to inform the educational policy. But, no government or education minister ever finds time to listen to the advice of such teachers.

Similarly in higher education, there are teachers who inspire students and try to connect their consciousness with social needs and aspirations. Perhaps time has come to recast the National Social Service Scheme [NSS] into National Innovation Promotion Scheme [NIPS]. The young students will be encouraged to learn from the elders and the grassroots innovators, traditional knowledge holders in society and benchmark the technological and institutional inertia in the country. Having done that, nipping the inertia will become easier.

We should also have an open source database of multi language, multi format content for school education developed by the NIPS volunteers to enable children in rural schools and urban slums to get same quality of content that the best schools may offer. We may not be able to modify the motivation levels of most teachers in such schools right away. But, we can make available such a content in a year's time. Disseminating such content through mobile phones and other telecom channels should not be a difficulty given the fact that almost 1000 crores are lying unused with TRAI. In any case, diverting even ten per cent of the 100,000 crores spent on rural development can take care of educational content in every single village of the country in one year time.

Institutional innovations:

The recent census figures have revealed what we noticed during our Shodhyatra that Mizoram had one of the cleanest villages and sanitation practices in the country. Yet, the national planners would prefer to visit Europe to study the toilets instead of understanding lessons of community based sanitation

developed by people within the last thirty years. Study of how do communities cooperate and generate norms and values for larger social good requires understanding the common property resource institutions evolved by people on their own, often without outside interference or support. Almost every house in Mizoram will have a rooftop water harvesting structure and thus this state could be called as water harvesting capital of India. Shouldn't the headquarters of sanitation and drinking water mission be located in Mizoram. Unless local institutions become a point of reference in managing resources, sustainability cannot be planned. It is also true that with passage of time, these institutions are becoming weaker. Neither in the school nor in the college, we study the dynamics of such institutions, which manage chabutaras [bird feeding platforms], traditional ponds and grazing lands, common forests and many other similar resource or functional challenges. There is a small database of such indigenous CPR institutions at sristi.org/cpri. The plantations achieved by Shri.Thorat required tremendous coordination and voluntary contribution by thousands of community members in Sangamner. The institutional aspect of such a kind of collective action requires constant engagement by policy planners and public administrators, which somehow is lacking. Premjibhai in Saurashtra also got inspired by reading the same book, i.e., The Man Who Planted Trees and started spreading seeds on a motorcycle. Having scattered tons of seeds, he got a vehicle in which he installed a seed broadcaster for the roadside plantation. Even if one seed out of thousand became a tree, he must have planted tens of millions of trees. The problem of firewood for women got solved although the thorns of *prosopis* did puncture a few tubes of the cycles. The institutional recognition for such individuals is also an important subset of developmental processes.

Technological innovations:

Small farmers, artisans, mechanics, students and others have solved thousands of technological problems over the years. The volunteers of Honey Bee Network have scouted such maverick innovators who have triggered a new knowledge based model of rural development. Innovations by the poor for the poor are not only possible but also desirable. But full potential of many of these innovations will not be realized without blending formal and informal science and technology. Despite all the breakthroughs, many challenges still remain.

While farmers in Jalgaon have discovered use of cultivating lady's finger as a border crop around cotton to trap the pests, this insight has not travelled to Vidharba where thousands of farmers have committed suicide. A society which does not provide knowledge highways for sustainable technologies to move from one farmer to another cannot have a sustainable future. The bottlenecks must

be very serious in the way of such lateral knowledge transfer. Honey Bee Network provides hundreds of non-chemical alternatives for pest control, water management, improving productivity of livestock and crops at www.sristi.org. But, unless farmers' organisations make such knowledge available in local language to different farmers, the experimental ethic will not get reinforced.

My contention is that new models of rural development require a focused attention towards people's knowledge, institutions, culture and educational innovations. The problem is that the policy makers have difficulty in conceptualizing the model which requires highly diversified solutions for variety of distributed problems. The preference for uniform and standardized solutions is very deep seated in our bureaucratic structures. SRISTI's www.techpedia.in is one such platform which connects technology students with the problems of informal sector and MSME.

Managing knowledge in a distributed manner requires reliance on knowledge producers. I have always argued that Minds on the Margin are not Marginal Minds. Grassroots innovations offer a viable alternative to top down approaches of development. If cooperative sector can adopt participative action research models, we can reduce the unit cost of the farmers and animal rearers and make rural society more self-reliant, sustainable, and collaborative.