

Leveraging Innovations for Inclusive Governance

by

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The desire for making public systems responsive to the needs of common people was never so high as is evident at the top level today. And yet, the gap between the promises and the performance is not going down at a significant rate. Perhaps, the willingness to learn from the innovations that make our governance inclusive is not denting the existing institutional arrangements evolved over time for preventing innovations. One of the most remarkable developments of the last decade is the availability of a range of technologies developed in the formal as well as the informal sector which can help in making our delivery systems more responsive. Over five to six hundred million cell phones provide a unique opportunity to communicate in a democratic manner with people and facilitate peer learning among them. The grassroots green innovations sourced from over 550 districts over last two decades [90 per cent in the last decade] have demonstrated the potential of common people to bring about a change in their own lives, no matter how sub-optimally, sporadically or in a scattered manner. Even in public systems, there are a lot of innovations being attempted by administrators at different levels in states and also in central government. But, one would perhaps not find a single file with any secretary to the Government of India or in the states listing various innovations tried during last five to ten years with whatever results.

That to me, is a central problem. Issue is not just that we are not trying to bring about change, but the problem is that we are not trying to learn enough from the changes being attempted already. If Prime Minister's office can award innovations in governance every year, then shouldn't every CM, secretary, and Collector recognize on the Independence Day various solutions tried locally to get rid of inefficiencies, infirmities or inadequacies in delivery systems or structure of governance. Cannot our country take a roll call of all the positive experiments tried in past or being pursued even now in every district and celebrate the outstanding ones on 15th August, 2010 and thereafter every year.

We need to create a series of processes which will ensure that our country learns from creative experiments being pursued in formal and informal sector and replicates them at local, regional or national level. However, we should not downgrade the importance of those innovations which solve only a local problem and which by definition may have a limited potential of diffusion. Scale should not become enemy of sustainability or desirability.

Around two decades ago, when Honey Bee Network was in its nascent stage, Mr. B.N. Yugandhar, a champion of sorts of off-beat ideas, innovations and interventions

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requested me to edit a special issue of the journal of LBS National Academy, "The Administrator" on administrative innovations. Accordingly, in 1992 that issue carried many stories of policy reforms through administrative innovations. How many people would remember that every small vehicle owner had to pay road tax every year standing in a queue all over the country? Once an administrator realized that three fourth of the revenue came from one fourth of the large vehicle owners but they had to stand in the same queue in which every owner of two/three or four wheeler had to stand, change followed. He began with the option of paying five years tax for the smaller vehicles and today we can pay life time tax for a vehicle. The transaction cost of the vehicle owners as well as the government came down drastically.

Likewise, in early 70's when Gujarat was industrializing, the need for trained technicians was felt. The capacity could not have been increased in the short run.

The then Industries Commissioner decided to have double shift in the technical training institutions. Without any capital investment, with appropriate incentives, the throughput of the system doubled in no time. Likewise, there were many other innovations documented then. Why wasn't an issue of this kind brought out every year by LBS Academy, so much so that they have even scrapped the half days workshop that they used to have for understanding the potential of innovations. Forget about a whole course on innovations, the foundation course of the administrators does not have even the miniscule of exposure to the potential for innovations in public systems. These young administrators will run the country for next thirty years. Is it surprising that the hunger for innovation is so low if at all in our public systems. We could look at the training systems of all the public enterprises and I won't be surprised if we don't find much emphasis or practically any emphasis on innovations in these programmes. Doesn't it show how strong the antibodies against the innovation are in our system?

There used to be a programme for rewarding innovations in oil sector. I chaired the jury of NPMP during 2003-04 and met some outstanding maverick innovators in oil sector. An engineer posted on off-shore rig would not go to the main land during his fortnightly entitlement but ask the pilots of the service delivery helicopters to bring various parts that he needed for his research on the rig. He developed from his own salary, an online lubrication system which didn't exist till that date. The jury recommended a worldwide tour for him to visit various off-shore drilling sites to spot opportunity, scan innovations and widen his horizon. Government closed the scheme, lest more people start emulating his example! A foreman in Baroda Refinery realized that SRU – II, kind of a simulated online control system of a refinery had a problem. Every 15th day, the tube in the air demand analyser had to be cleaned requiring stoppage of the refinery. The Canadian company which had designed the analyser had provided for such cleaning every fortnight in their manual. The clogging of the tube took place because when the gas expanded, it cooled down leading to the precipitation of the salts. The foreman realized this problem, put a heating coil outside the analyser around the pipe so as to heat the gas getting into the analyser. It is still expanded and cooled but not enough to precipitate the salts. The system did not have to be stopped every 15th day. Crores worth of production was saved, he was given a paltry award of Rs.50,000 with no career advancement. Today, the ONGC Chairman may not have a file in his office listing such glorious achievements of his team. There will not be any hall of honours where the

photographs of such achievers are displayed. Not even in the refinery, many people would have noticed his contribution. I invited him to the second Inventors of India workshop at IIMA but I could not get him any recognition or opportunity for further innovation. If we are so indifferent towards the existing talent in public system, will we really be enthusiastic towards triggering new innovations and supporting them?

Let me move towards the problems of common people which have remained unaddressed by our innovation system for so long.

For Just a cup of tea?

Every cup of tea that we take should remind us of the pain that the leaf plucking labourers, generally women, go through in picking the leaf and putting it in the basket behind the back. If anyone of us does this action a few dozen times, we will have pain in our shoulders. The workers do it thousands of time every day. Neither the Tea Board nor tea companies are bothered about the plight of the tea plantation workers.

Practically all the rice that we eat is transplanted by largely the women, manually in a very awkward back bending posture. China has paddy transplanters used at small farm level, we have not. It is not beyond our competence but competence can come into play, when concern for such drudgery is evident. Merely increasing the competence will not deliver inclusive innovations. Compassion and collaboration have to complement the creativity.

The iron stand that a cobbler uses was designed more than a century ago for the shoes that required hammering the nails in the sole or the stitches. Today, most shoes require adhesive. Tool facilitating clamping to make adhesive stay stronger have not been developed. One can go on and list hundred other such problems which have not been addressed by the formal system. Inclusive science can supplement inclusive delivery systems.

Essentials of the innovation eco system:

a. *Using standards to trigger and sustain indigenous innovations:* When a grassroots innovator, Mr.Virendra Kumar Sinha developed a pollution control device for capturing about a kilogram of carbon from the exhaust air of the diesel power generator used in his workshop in Motihari, he made a small contribution towards the achievement of the Prime Minister's goal of reducing carbon intensity of Indian economy. But, there will be no traction for his innovation till the standards are changed. Installation of such a device should be a requirement to reduce sound and air pollution in generators or engines. At the same time one can extract almost industrial quality carbon black [which can be used in tyre or ink industry]. There are a large number of other examples where a competitive edge can be achieved by modifying standards in areas where India has a comparative advantage without violating any of the global trade rules.

b. *Early stage product development support for individual and MSME*

innovations: Dr. D. Janardhana Reddy and Mr. Narayanan developed a two sided screen for a laptop so that dialogue can comfortably take place between a doctor and a patient, colleagues in the office or in any other setting where one has to sit across the table. Such a laptop does not exist even in the developed countries. They needed a small early stage funding to make prototypes, do market testing and develop facilities for large scale manufacturing. Similarly, about 200 and odd individual professional inventors identified after scanning about 6000 Indian patents between 1998 – 2008 [all through my own resources] needed varying kinds of support. Outstanding medical devices have been developed by surgeons for spinal injuries or for other invasive surgeries or for fixing flexible needles in the femur fractures of children. Practically none has received any funding or support for further development(a few exceptions apart). If such is the fate of professionals who have the ability to answer technical questions in technical language, the fate of the grassroots innovators majority of whom are school or college dropout can be well imagined. It is not for nothing that the major gap continues to plague the system at the most risky stage of the innovation chain in the country. There must be some antibodies which militate against such help to creative people.

c. *Fast track for protecting green and small innovations:* Australia realized the need for innovation patent system for small innovators with five claims, eight years protection and three months processing time for a very small fees. They realized that most jobs are generated by small enterprises. These enterprises cannot set up costly R&D or innovation units. But they do have incremental innovations. They either must source innovations from outside or develop it themselves. By keeping a cost of innovation system for MSME low, one could reduce the licensing fee and thus the transaction costs of acquiring innovations from outside. More innovations, more competitiveness, more jobs.

Is it too difficult to understand the logic of such a system which we have refused to take note of, for last decade and a half? USPTO in November 2009 created a fast track for protecting green innovations so that they can come to market faster. We have not done either. The patent system can trigger tremendous stimulus for innovation if it can be used by the local communities as well as small innovators for unique, hitherto unpublished traditional knowledge which has potential for characterization and value addition. A great deal of reform is required besides a helping hand. Likewise, the open source technologies must receive no less support because majority of the knowledge which poor people can access has to be in the form of public goods.

d. The greatest asset of a country is its young people. For six years, I tried with practically all relevant ministries to create a portal of the technology projects done by about 600,000 technology students in the country. I could not convince anybody. Then, a young student got bugged by this challenge and did what I could not do on my own. Hiranmay Mahanta and his team from SVNIT Surat have pooled 104,000 project summaries from 500 colleges involving 350,000 students in about six months. The portal supported by SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) at www.techpedia.sristi.org or www.techpedia.in has mapped the mind of Indian technology youth. The challenge is now to collect the

technology problems faced by the MSME and informal sector so that every final year engineering student in the coming year has the opportunity to take a real life problem. With mentoring from senior scientists, technologists and engineers, we can achieve in a year more than what we could achieve in the last 60 years. This will give credence to the mission of Decade of Innovation announced by the President and the Prime Minister so passionately. There is no reason why one should not expect 6000 solutions from six lac students every year. A similar engagement of students from various disciplines is called for. Students from management and various natural and social sciences need to connect with real life problems of our society, be it of supply chain, logistic management, developing small ERPs for MSME, etc. The focus of AICTE and UGC and the proposed higher education regulation council needs to be realigned with the unmet needs of the society.

e. A great deal of criticism is placed at the door of public educational institutions. And yet, ask any student passing out with merit from any school in the country to rank the top institutions he or she will like to join, and the answer would be one or the other public managed higher education institution [with exceptions of BITS Pilani and a few others]. There is no reason why excellence achieved by such institutions cannot be replicated. But then, we ought to focus on the inspired teachers. Does any secretary of education at state or centre level have a list of 100 most inspired teachers at different levels of education in the public or private system? Has any consultation taken place with such inspired teachers to design the policy? The basic principle of public administration is that an outstanding performer in the given system with all the available constraints has the first right to advise reforms. When did we talk last to the outstanding performers at different levels and in various sectors in the country? Does not the answer hold the key to our determination or lack of it towards innovations in public systems?

f. *Building a national database of innovations in public systems:* It is very gratifying that the 13th Finance Commission undertook a survey of innovations in public systems and gave opportunity to NIF (National Innovation Foundation) to put together the experiences and insights. The Commission has recommended in the paras 12.92 and 12.96 setting up of "Centre for Innovations in Public Systems to identify, document and promote innovations in public services across states". A grant of Rs.20 crore has been recommended for the purpose. In addition, "a second grant of Rs.1 crore per district is for the creation of District Innovation Fund [DIF] aimed at increasing the efficiency of capital assets already created." Obviously, we need to go further in creating a small social venture fund in every district to support unconventional ideas emerging from within the system which can improve the delivery of public services. If somebody wants to test the use of RFID tags on PDS grain bags or use bar coding system to get online feedback through bar code scanners embedded in the mobile phones, it should be possible for such an experiment to take off. We can sort out the leakage problem in no time by using technology and supply chain tracking tools at a very nominal cost using open source softwares. However, more ideas of this kind will require experimentation. For instance, in one of the states, a learning boat would travel with the living boat of the fishermen and women in the high seas. Children will move to the learning boat in the day time where a teacher would teach them every day. In the evening, they will

join their parents in the living boat. Isn't it an outstanding example of innovation in delivery system by the local people? This innovation was not even reported by that state to the 13th Finance Commission. Likewise, there is a tremendous scope for empowering local administration to take initiatives at individual, group, or institutional level beyond the higher level policies or schemes. Unless we liberate the local systems of governance at least to some extent to design their own solutions, the crucible of creativity will not flourish.

The institutional processes have to be put in place for creating learning logs of innovations [failed/successful] at different levels by different agents so that lateral learning can take place at a much faster pace than is possible today. The accountability of such experimenters should not be measured in terms of success in the outcomes but in terms of earnestness and novelty of effort and willingness to fail (that is to take risk). Unless we make investment in genuine failure, we will not succeed.