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INNOVATIONS IN RURAL INSTITUTIONS: *DRIVER FOR AGRICULTURAL PROSPERITY*

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Innovation in Rural Institutions
Driver for Agricultural Prosperity

PREAMBLE

The globalization of Indian economy has opened up many opportunities and challenges to the policy makers and the rural population. There are also major threats of abject poverty turning down to pauperization, growing inter-farm as well as inter-regional disparity, low productivity of land, water and other factors of production, besides unequal household income. These maladies have critical implications on rural population, which constitutes over two-thirds of total population of the country most of whom are engaged in agriculture. The unequal pace of growth in farm and non-farm sectors, in temporal as well as cross sectional dimension, creates a serious rural-urban divide. Notwithstanding the agricultural growth due to successes of green revolution, about one in every four persons in the country still lives below the poverty line and more than 300 millions earn less than a dollar per capita per day. More technological innovations, productivity enhancing practices, and supportive policy interventions are, therefore, required in the rural areas to alleviate the society from the grip of poverty, malnutrition and hunger.

Modern agriculture demands more and newer knowledge almost on continuum basis to meet the challenges of rapidly changing nature and composition of the technology. But, due to lack of supportive policy framework and required backup services, the gap between the potentiality and the achievement remains far from convergence. Therefore, access to information and building managerial capability of rural people have become crucial. Strategies are required to effectively **reaching out** to the target groups and for uplifting rural India to achieve the millennium development goals (MDG).

Rural Institutions play critical role in translating agricultural production into profit, which is *sin-qua-non* for equitable societal development. In effect, these institutions could be a potential agent of change in the rural areas. India has a rich tradition of peoples' institutions for managing common natural resources and stable production practices. The neglect of these institutions resulted into deprivation of access to information, technology, other means of economic gain, and increased the probability of their exclusion from agriculture. This also increased vulnerability of rural livelihood to various shocks in production, making their status deplorable (clear reflection in the 59th round survey of the NSSO). This is a matter of concern to the policymakers and researchers.

Several models of modern institutions such as Panchayati Raj Institution (PRI), corporate models including Rural Retail Chains, and the Self-help groups (SHG) are being experimented in various parts of the country to address the problem of burgeoning income gaps. Nonetheless, their impact at the grass root level is meager with limited spread. With a view to understand the pathways of rural development and suggest institutional mechanisms to

effectively reach out the target groups, a national colloquium on ***'Innovations in Rural Institutions: Driver for Agricultural Prosperity'*** deliberated upon to evolve an institutional model for rural development under the auspices of the NAAS and the NCAP. The NAAS is an organisation of agricultural research advocacy, and NCAP is agricultural economics and policy research institute. Eminent experts across the country including NGOs, agri-business corporate leaders, etc. participated. The programme was organised in three technical thematic areas viz., (i) institutional framework building, (ii) innovative technologies and new initiatives partnership, and (iii) knowledge gaps and capacity, with the following focussed objectives:

- **To gain insights into the "rules of the game" of rural institutional innovations**
- **To sharpen our understanding of the complex rural institutions, their strengths and weakness and**
- **To draw policy lessons.**

The deliberations provided initial platform to learn lessons from successes as well as failures of the available models being experimented in recent years both by the public and corporate institutions. The learning lessons will be integrated to frame a scalable model of rural institution.

MODELS AND LESSONS LEARNT

Several models are being experimented in recent times throughout the country. It is giving desired pay off in various sectors. Lessons learnt from some of the selected models are of interest.

Model 1: Farmers' Club Programme

With the mission of accelerating the growth and development of the rural areas, this model initiated by NABARD, envisages efficient use of agricultural credit in scientific ways. The terms and conditions of credit are respected, and the work is done with skill so as to increase production and productivity, provide additional income, and encourage the farmers members to repay loan instalment regularly to enable recycling of the credit.

Currently a strong network of 17,976 farmers' clubs covering 524 districts in 29 States and the Union Territories are in operation. About 40,885 villages have benefited through 12234 SHGs linkages, which involved nearly 1590 voluntary agencies and Krishi Vigyan Kendras (KVKs). The club undertakes the responsibility to coordinate and ensure credit support among the members, and foster better bank-borrower relationship.

In this model, Farmers' Club is an informal forum at the grass root level, which connects rural banking institutions with farmers for mutual benefits and creates user-friendly environment through direct intervention of the National Bank for Agriculture and Rural

Development (NABARD). The introduction of the club made impact both to banks as credit provider, and the village community as beneficiary of credit institutions. The banks benefited through enhanced business opportunity in various spheres of agriculture by efficient banker-borrower relationship, increased deposit mobilization and credit flow and thereby, reduction in transaction cost, which has direct impact on agriculture productivity.

Model 2: *Tata Kisan Sansar*

For creating rural entrepreneurship and fulfilling corporate social responsibility, this model designed by Tata Chemical Limited, is to reach the farmers through farmers-corporate alliance. It provides adequate market access to catapult further investment with a mission to help them creating value addition by fulfilling credit need, providing information and advice on better agronomic practices, apart from supply of quality agri-inputs at a single source point. All these in tandem, lead to improved farm incomes, which endeavors building a genuine and lasting relationship with the farmers through corporate intervention.

Tata Kisan Sansar (TKS) evolved a **"Hub and Spoke"** model. The competent scientific and technical staff along with *Krishi Preraks* join with the TKS to serve presently 101,040 farmers covering 25,260 villages.

Farmers critically need opportunities to operate over the production to consumption chain. This obviously requires continuum of improved capacity building and knowledge empowerment which is relevant to customers' needs. Tata Kisan Sansar recognizes the importance of efficient delivery of agri-inputs as factor of production, access to markets, credit and information, which are the key to input-use efficiency. The "Hub and Spoke" model, although a success, needs to be further strengthened by expanding its collaboration with domestic/ global corporate sectors and government agencies. Further, it needs to scale up robust credit facilitation, expand contract farming, utilise crop diversification and crop insurance as risk mitigation mechanisms. It is likely to provide farm-gate linkages (use of NCDEX, MCX information) and improve soil health through crop nutrition services. This is done by forging interface with leading research Institutions to create market driven R&D solutions. This approach makes the Tata Kisan Sansar an approachable and reliable business partner, offering end-to-end farm management solutions and providing reliable and top quality agri-inputs.

Model 3: *Hariyali Kisan Bazaar*

Towards integrated rural development initiative, this model of DCM Shriram Consolidated Limited, envisages the issues faced by the Indian farmers in the production processes, namely, unreliable and spurious sources of inputs, small land holdings, low mechanization, repetitive cropping practices, expensive credit, poor market linkage and unorganized trading. All these happen due to huge gap in know-how. The deficiencies in agriculture resulted in

declining productivity. Low and uncertain productivity has implications on household food security to millions of small and marginal farming households. Hence, the root of critical gap is the "THE LAST MILE" solution.

Hariyali Kisan Bazaar is a unique farmer-corporate interface, which operates on a 3-tier system 1) Farm Advisory, 2) Rural Retailing and 3) Farm produce Linkage. This model provides all the needs of the farmers under one roof, encourages diversification of opportunities, and facilitates technology transfer, besides focusing on marketing of agricultural produce and processing. Major focus is on "Customized Advisory" rather than "Mass dissemination". The model made tremendous positive impact on the farmers' income and promoted several innovations such as introduction of new cultivars of paddy, which has built-in time saving devices and has enabled the farmers to add potato into the crop rotation, and to introduce summer *moong* in paddy-wheat rotation to enhance income and improve soil fertility. Since the focus here is on techno-commercial aspects, it creates much higher interest of the farmers.

Model 4: Field Management Committee

In this model, **Farm Management Committee** (FMC) is an instrument of rural development and mechanism of knowledge empowerment to the farming community. It is not only a unique organization, but also giant in size having a super-structure of nearly 26000 FMCs, with estimated membership of 1.8 million farmers in Assam. Being a unique and un-parallel engine of change, FMC commands full stakeholders' support. It also recognizes the value of transfer of technology for increasing food production, and serves as institutional credit collateral for rural development through collective action. This model of voluntary farmers group has been in existence and in operation in Assam and the lessons learnt from it are:

- The model has created enabling environment for knowledge sharing, improving household income as well as rural livelihood.
- The success of the Margin Money schemes, Shallow Tubewell (STW), and Farm Mechanization Schemes (provision of providing the services of tractor and power tiller, etc.) is attributed to the FMC. This is a necessary condition for success of developmental schemes.
- The built-in goal of collective responsibility of village development and community ownership, is a remarkable feature. It sets an example of a powerful rural institution, which improves technology-led agriculture and other rural enterprizes. This also facilitates the "reaching out" to each and every one in the targeted group successfully.
- It sensitized rural youth and woman groups to adopt and emulate innovative practices such as introduction of newer paddy varieties, vegetables, citrus, mushroom and horticultural plantation profitably, which increased the cropping intensity to the tune of 176 percent from less than 130 percent.

- Regular capacity building trainings on newer agricultural methods and practices resulted in more innovations for adoption by the farmers.

Nonetheless, there are limitations of the model, too, namely, inadequate information outlets, hesitation to contact the experts and lack of marketing infrastructure and intelligence, which restrained physical production to translate into income. Moreover, off and on policy of the government dampens the enthusiasm of the rural people.

In improving the access to information on agricultural technology, agro-processing and market intelligence in rural areas, peoples' organization such as FMC played pivotal role. Involving the stakeholders to solve their own problems and develop peoples' friendly policy is a hallmark of the model, which helped attaining household food self sufficiency. The innovative and democratic structure and organisational mechanism is a novelty to be emulated by others.

Model 5: REACH INDIA: *A Business model for fighting poverty*

The self-help group movement in India is already in the fast-track pathway seeking improvement in the livelihood of the rural families. This model, an offshoot of the Freedom from Hunger of USA, involves self-help promoting institutions (SHPIs) to help the poor through the SHGs. One of the key elements of the Reach India model is its intention to become fully sustainable, and supports progressive scale over time. It assumes that the poor **need more** than the money alone. Knowledge awareness, access to information, and enabling condition for affordability, etc. are equally important. The model encourages and promotes multiple revenue streams at various levels of success, although the Capacity Center indirectly supports the organisations to secure various basic services.

Reach India works for target customers on the principle of *their needs, our services*. SHPIs help developing leveraging group power, the **'collective courage'** of women for greater influence in the society. The important sources of success of the model are dynamic business linking SHG-knowledgeable entrepreneurs in brand building and providing greater scope for upscaling. As more managerial decisions are pushed out to the franchise owners, less managerial capability is required within the group.

Model 6: *Panchayati Raj Institutions*

Newly amended Panchayat Raj Institutions (PRIs) as an Instrument of Delivery System in Rural Areas, is the third tier of governance, which performs twenty-nine functions devolvable by state governments to PRIs. As of now, expenditures under the stipulated budget heads pertaining to support to research institutions (as in soil conservation) and departmental infrastructure (as in crop husbandry or irrigation or forestry) are not devolvable in their totality as observed in a study of the states of Madhya Pradesh, Chhattisgarh, Rajasthan and Orissa. Table 1 reveals that the devolvable percentage under each function in the

Table 1: Success of devolution of decentralized financial governance under PRI (%)

	Madhya Pradesh	Chhattisgarh	Rajasthan	Orissa
Devolvable/Total expenditure	50.5%	63.3%	59.9%	36.6%
Devolved/Devolvable expenditure	20.4%	1.7%	0.09%	0
Direction and Admin.	32.9%	30.9%	32.9%	49.2%
Extension Training	2.8%	2.6%	5.6%	3.3%
Crop Insurance	9.3%	0.5%	0.7%	0.5%
Agricultural Engineering	4.4%	2.7%	0.2%	1%
Total non Devolvable	49.5%	36.7%	40.1%	62.5%

Source: A survey done by NIPFP

Eleventh Schedule varies across the states as a function of the importance of these sub-components within the relevant budget head.

PRI as an institution of rural development appears to be not serving as an instrument of the delivery system for crop husbandry in any substantive sense, as compared to extension as a critical function at the state level. However, there are potential benefits of crop insurance, which performed well as a largest possible risk pool mechanism at the national level. The effectiveness of PRI as an instrument of delivery, however, prejudges and presumes constitutional provisions, as a mere budgetary provision through functional transfer, carries no significance.

Crop insurance, which required to be factored in financial allocation and management, is negligible everywhere except in Madhya Pradesh. Here, the highest devolvement is in horticulture, and the second-highest is in foodgrains and commercial crops. There is need for rationalizing the budgetary classification into input-based ("seeds") and output-based ("foodgrain crops") functions.

RECOMMENDATIONS

Agriculture is the lifeline of rural economy. But the modern agriculture is highly knowledge-intensive, may it be technology innovation, input delivery system or market place. Therefore, given the social reality, in order to enhance production and household income, appropriate institution is of paramount importance to ensure sustainable agricultural development. Achieving equitable and anticipated inclusive growth, presupposes cooperation of people in the developmental process.

Newer institutions are emerging along with the older ones. There are many success stories of reputed cooperatives, contract farming, marketing societies, water users' associations, etc. However, upscaling of these institutions for wider impacts to all section of the rural

communities is a challenge to the policy makers. The model of rural institutions having the characteristics of adaptability under diverse socio-political and ecological situations is the need of the hour. Deliberation on selected thematic areas has paved the road map and pathway for learning lessons. Lessons are derived from the selected successful cases evolved by both public as well as private initiatives, which could be integrated into an overall model of effective rural institution. Important facets of the model institution are as follow:

- Sustainability of an institution relies heavily on the efficient leadership. This requires capacity building to enhance and familiarize with the modern development at all levels of stakeholder groups: at state level, at district level, and farmer level at tandem. Since individuals alone can not deal with common infrastructural requirement and other public goods, consortium of contiguous villages could provide alternative management of common property resources including knowledge and information sharing.
- Optimal conditions for success should be calibrated into the group formation, which satisfy the following pre-requisites. The reform agenda must integrate the entire decision making chain and the policy network.
    - Willingness is must to adopt newer methods and learn innovative practices.
    - Common goals and decisions of the institution should be individual friendly and acceptable to all.
    - Size of the group should be optimal depending on the local conditions.
    - Knowledge update is required for the leadership and the members. Leader should have knowledge and more interest on innovative and creative activities.
    - Leader should ensure remunerative and equitable return to the cooperation (eg. Visible gain in farm income and enhancement in livelihood security).
    - Rules of the games should be defined clearly and implemented efficiently. A transparent system bestows greater confidence in the group.
- Continuity in knowledge upgradation and information sharing and spread among the members must be ensured. Therefore, establishing effective linkages and developing contacts with local research and development organizations such as KVK, ATMA, SAUs, PRI and reputed NGO are a must to improve knowledge base and efficiency of the institutions.
- Participatory approach to management and decision making as promoter of inclusiveness needs to be factored into user-friendly model.
- Creative leader overlooks regulatory mechanism, indulge in constant monitoring and adopting correction mechanism, so that institution becomes sustainable. Changing mind-

set towards full involvement and sense of ownership among the stakeholders is necessary. Monitoring and constraints assessment through mutual feedback mechanism on regular basis is indispensable in correcting deficiencies and bringing improvement in the adoption of newer practices

- Apex management bodies need to evaluate the successful institutions and create conditions for replication and upscaling to wider areas.
- Public investment on social infrastructure such as health care, roads, schools and on economic infrastructure such as market, backward and forward linkages in the supply chain for converting it into a value chain through innovative pricing incentive policies is indispensable for achieving inclusive growth.
- Infrastructure such as retailing facility for agro-inputs, relevant advisory by subject matter specialists drawn from local agencies, agro-processing, storage, packaging and marketing are often neglected areas, which need to be revitalized for maximizing gains. Ironically, less than 2% of agriculture produce is being processed currently. Such a poor agro-processing is wasteful, particularly for the perishable commodities, and drains away larger portion of valuable income.
- Provision for creating non-farm opportunities is essential to enhance and supplement overall household income. This also helps preventing farmers' exclusion from agriculture (NSSO data shows that 40% farmers desire to leave agriculture enterprise). Promoting rural diversification, contract farming practices, commodity cooperatives such as milk cooperatives, sugar cooperatives, fishery cooperatives and marketing networking are essential.

In **conclusion**, a single model of rural institution, can not be a panacea for the entire country. Given the socio-economic, geo-political and agro-climatic diversity, the model has to be regional and situation specific recognizing the role of the people for managing their resources most efficiently. It needs to be backed by policy intervention to ensure knowledge awareness and access, and enabling condition for affordability. Thus, inclusiveness is the core of the model. It certainly requires continuum of capacity building of the rural polity, scoping interface between research institutions and the farmers. This would strengthen the input-output delivery mechanism, linking farmers with market, empower common people and increase prosperity of the rural areas.

NAAS Documents on Policy Issues*

1.	Agricultural Scientist's Perceptions on National Water Policy	- 1995
2.	Fertilizer Policy Issues (2000-2025)	- 1997
3.	Harnessing and Management of Water Resources for Enhancing Agricultural Production in the Eastern Region	- 1998
4.	Conservation, Management and use of Agro-biodiversity	- 1998
5.	Sustainable Agricultural Export	- 1999
6.	Reorienting Land Grant System of Agricultural Education in India	- 1999
7.	Diversification of Agriculture for Human Nutrition	- 2001
8.	Sustainable Fisheries and Aquaculture for Nutritional Security	- 2001
9.	Strategies for Agricultural Research in the North-East	- 2001
10.	Globalization of Agriculture: R & D in India	- 2001
11.	Empowerment of Women in Agriculture	- 2001
12.	Sanitary and Phytosanitary Agreement of the World Trade Organization – Advantage India	- 2001
13.	Hi-Tech Horticulture in India	- 2001
14.	Conservation and Management of Genetic Resources of Livestock	- 2001
15.	Prioritization of Agricultural Research	- 2001
16.	Agriculture-Industry Interface: Value Added Farm Products	- 2002
17.	Scientists' Views on Good Governance of An Agricultural Research Organization	- 2002
18.	Agricultural Policy: Redesigning R & D to Achieve It's Objectives	- 2002
19.	Intellectual Property Rights in Agriculture	- 2003
20.	Dichotomy Between Grain Surplus and Widespread Endemic Hunger	- 2003
21.	Priorities of Research and Human Resource Development in Fisheries Biotechnology	- 2003
22.	Seaweed Cultivation and Utilization	- 2003
23.	Export Potential of Dairy Products	- 2003
24.	Biosafety of Transgenic Rice	- 2003
25.	Stakeholders' Perceptions On Employment Oriented Agricultural Education	- 2004
26.	Peri-Urban Vegetable Cultivation in the NCR Delhi	- 2004
27.	Disaster Management in Agriculture	- 2004
28.	Impact of Inter River Basin Linkages on Fisheries	- 2004
29.	Transgenic Crops and Biosafety Issues Related to Their Commercialization In India	- 2004
30.	Organic Farming: Approaches and Possibilities in the Context of Indian Agriculture	- 2005
31.	Redefining Agricultural Education and Extension System in Changed Scenario	- 2005
32.	Emerging Issues in Water Management – The Question of Ownership	- 2005
33.	Policy Options for Efficient Nitrogen Use	- 2005
34.	Guidelines for Improving the Quality of Indian Journals & Professional Societies in Agriculture and Allied Sciences	- 2006
35.	Low and Declining Crop Response to Fertilizers	- 2006
36.	Belowground Biodiversity in Relation to Cropping Systems	- 2006
37.	Employment Opportunities in Farm and Non-Farm Sectors Through Technological Interventions with Emphasis on Primary Value Addition	- 2006
38.	WTO and Indian Agriculture: Implications for Policy and R&D	- 2006

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