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Market driven extension approach in commodity crops development Programmes

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Introduction

Agriculture in general, particularly in the developing countries, is facing several challenges. Ever since agriculture had been included in negotiations under GATT in 1986 (when the Uruguay Round started) it was becoming increasingly clear that from a production oriented enterprise, agriculture has to be transformed to a business activity. However, this transformation is not an easy one, particularly considering the stakeholders involved in the agricultural production and the current infrastructure available for bringing in the change. Globalization ushered in with the advent of WTO has suddenly exposed farmers, particularly in countries like India, who have been enjoying varying degrees of protection. Unlike in many developed countries, realities of globalization has to be faced by farmers at a time when even efficiency in production has not been fully achieved. Efficiency in production, which could be measured by productivity per unit land area, is much low in many of the countries including India. In spite of being a large producer of many commodities, the productivity is dismally low in India. The low productivity can be attributed to many reasons such as research gap, extension gap, inadequate investment in technology development and Human Resource Development, etc.

WTO and Agriculture

The guiding principles of WTO are (1) Market Access which warrants of removal of Quantitative Restrictions and binding on tariff, (2)Most Favoured Nation Principle which stipulates that no discrimination among member countries (exception to Regional Trade Agreement) and 3) National Treatment Rule, where no discrimination between imported products and domestic products can be made. The agreement on agriculture (AOA) stipulates to reduce tariffs and also that the domestic consumption at least to the tune of 3% be met by imports. This has to be raised to 4% by 2004. Subsidies which are production and trade distorting have to be phased out. However, in the Indian context calculated Aggregate Measure of Support (AMS) is negative. Moreover, activities such as agricultural research, market promotion services extension support, etc. are exempted from the ambit of AMS. It is in this context a policy orientation to the post WTO regime is important.

Impact on Plantation crops

All the plantation crops have varying degrees of impact of WTO regulations and this is exceedingly important for Kerala, which accounts for 45% of area under the plantation crops in India and 20% of Kerala's population depend on plantation crops for livelihood. Plantation crops, viz., rubber, tea, coffee and cardamom cover 1/5 of the net cropped area in Kerala and it contributes to 1/3 of Kerala's SDP from agriculture. A relatively low bound rate and categorization of rubber as a nonagricultural product can affect rubber in the long run. Similarly tea and coffee also are affected though, both are protected by high bound rates. Lower productivity due to a variety of reasons and missing out in the international market on quality and packaging standards, are all which can affect the prospects of these two crops. India's export in tea sector has declined from 40% to 24%. Coffee also faces challenges as its fortune depends on international trade. Similarly share of cardamom also has declined in international trade. From the status of leading producer / exporter, reputation of

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these crops have been eroding over a period of years and the problems will become more severe in the WTO mandated regime which warrants lowering of domestic support measures for production, export besides the need to reduce tariff particularly for rubber.

It is in this context the role of extension becomes more relevant and important. It is often commented that the inventions or research findings seldom reach the farm and farmers still resort to their age old practices or adopt practices indiscriminately leading to lower productivity. However, looking at the history of agricultural development in the country, one could easily see that spectacular progress has been achieved in agricultural production in India. From a production of 51 million tonnes of food grains in 1950-51, food grain production touched about 212 million tonnes in 2003-04. This has been possible as a result of research and extension backed up by appropriate policies. In general, we have seen an intensive agricultural development from 1960 onwards and the green revolution taking place as a combination of a host of factors. Though, there are controversies regarding the manner in which green revolution has been made possible, the fact remains that, from the stage of 'ship to mouth' existience, it has become self sufficient in food grain production. Though several socio-economic issues such as equitable distribution and so on challenge the claim, the country as a whole is not dependent on other countries any more for food grains. The role played by agricultural research and extension in this phase of development has been quite substantial. However, it is true that the benefits of green revolution cannot be claimed as a general agricultural development as its benefit could not be extended to all crops, across the country and particularly in rain fed areas.

Challenges to the extension system

Forces of new global acricultural economy will have its impact on agriculture in India too. Trade liberalization, vertical integration and structural change will be the forces of the new agricultural economy. While, trade liberalization leads to removal of international trade impediments, fall in cost of transportation and communication, increase in dependency among national economics in trade, finance and production, vertical integration leads to demand driven integrated supply chains, increasing demand for high quality food products in global markets. Structural change involves increasing labour productivity and new business arrangements and also can develop vertical integrated supply chains. While the traditional market development strategy in agriculture was supply driven, which concentrated on performance gaps addressing trade such as (1) increasing productivity, (2) reducing cost, (3) increasing skill, (4) improving logistic and transportation, the new supply chain should be demand driven aiming at bridging the particular gap which is more value based, addressing issues such as (1) quality of the trade (2) comparative advantage, (3) New market and business development and (4) integrated supply chain. A combination of both these is expected to lead to value creation.

The extension approaches adopted in the country can be mostly classified to: (1) commodity based extension approach, (2) community development or rural extension approach, (3) technical innovation centered or university based extension approach and (4) clients focused extension services (mostly done by Ministry of Agriculture).

The organized extension in the country can be broadly classified in to 4 phases of development as given below:

(1) 1948 to 1960 Extensive Extension Programmes which included (a) Grow More Food Campaign – 1948 (b) Community Development Programme – 1952. The second phase, Intensive Extension Programmes (1960 – 1974) included (a) Intensive Agricultural District Programme (IADP) – 1960, (b) Intensive Agricultural Area Programmes (IAAP) – 1966, (c) High Yielding Variety Programme (HYVP) – 1966. The third phase started with programmes of research based Extension Methodology, viz., (a) National Demonstration Programme – 1965, (b) Operational Research Project (ORP) – 1971, (c) Lab to Land Programme (LLP) – 1979 and the fourth phase with introduction of World Bank aided project covering (a) State Agricultural Extension Projects (T&V), 1974-75, (b) National Agricultural Research Project (NARP), 1980 – 88, (c) National Agricultural Extension Project (NAEP), 1985-88 and the latest National Agricultural Technology Project initiated in 1998.

Each of the above has its own advantages and disadvantages. A commodity based extension approach adopted mostly in the case of plantation crops, however, has had its share of success, particularly in the case of rubber. Rubber enjoyed several advantages as per provisions of the Rubber Act which laid emphasis on development of the rubber sector, with focus on research, development, extension and training. With a single window service offered and with all these activities coordinated under the same autonomous body, the much

needed interdisciplinary linkages could be established to a certain extent. The net result has been the significant progress made in terms of expansion of area, increase in production and most importantly increase in productivity. The Rubber Board with its own Research Institute and an extension machinery, where development and extension functions. However, the impact of globalisation as in other crops is felt in rubber also. The rubber sector was also enjoying several protectional measures such as restrictions on import, higher level of assistance for development, market interventions, etc. As a result of removal of quantitative restrictions, a market integration has already taken place and the Indian farmer at present has to compete in the international market. Though, India is still enjoying the status of a large consumer and the consuming industry in the country is in a position to absorb almost entire production, challenges offered are of higher magnitude.

Agricultural sector in general in the country is open to threats from imports mostly through processed forms. Statistics reveal that only very small percentage of fruits and vegetables in the country are preserved and packed for value addition. While countries like Brazil, Mexico and Philippines are processing about 80% of their vegetables and fruits, only a very small percentage is preserved in India and bulk of it gets spoiled too. In rubber there is a need for bringing in changes in the pattern of processing. In India, 70% of the rubber produced is processed as Ribbed Smoked Sheet (RSS). The preferred form of NR in the world is for Technically Specified Rubber (TSR), the production of which in India is only about 12%. As a result of a shift in preference in favour of TSR by the consuming industries and with practically no restrictions on import, the demand for sheet rubber in the country in the long run will diminish. A separate raw material supply chain has to be established which is not very long considering the fact that products such as dominated by small and marginal farmers. If the farmer is not equipped to meet these challenges, problems are likely to crop up in the sector. In other plantation crops, such as coffee, tea, spices also threats of varying types are looming charge. Indiscriminate import of inferior quality materials for the purpose of re-export, etc. can damage not only the brand but also the market.

It is in this context the extension component of the agricultural development programmes becomes important.

Increased thrust on Human Resource Development (HRD)

Public extension at present is adding little to assist farmers in persuing new opportunities and extension has very limited capacity to assist farmers in taking advantage of new global opportunities. As a mere conduit for transfer of technology, it does not have existence. The extension system has to perform far more sophisticated tasks for equipping the farmers to meet the challenges not only in terms of access to information, but also to make him empowered. The traditional training for agricultural extension officers need a complete reorientation.

A new approach to Human Resource Development for agricultural extension pursuing in terms of required competency in technical, organizational, managerial, communicational and business skills need to be adopted to meet these challenges. A policy for HRD, which not only confines to competency building but also provides for congenial working environment to extension personnel will have to be evolved. It is a fact that agricultural extension in the country is affected by non viability of sustainable indigenous methods of development in extension management.

Extension education in the country has to be reoriented to give appropriate exposure on the global agriculture and trade and also the nuances of business if agriculture has to be transformed as a business enterprise. Constraints in the system are multiplicity of technology transfer system, inadequate technical capacity within extension system, lack of farmer focus, lack of local capacity to validate and refine technologies, weak research extension linkages, poor communication capacity of technical staff and inadequate operating resources. In India, lion's share of production of various commodities is in the small holdings. In rubber 88% of the production and area is in small holdings with an average holding size of less than 0.5 ha and the operational holding size is getting decreased. Expansion is taking place in marginal lands and non traditional area and more resource poor farmers are entering rubber plantation sector. Innovative approaches are required to be adopted to support them and institutional development becomes exceedingly important. These have been tried and tested in some of the projects in the country with fair degree of success. A change from piecemeal to holistic approach, bottom up instead of top down approach, shift from input delivery to extension services, and shift from individual to group approach, policy reforms and institutional restructuring, etc have

found to be successful in developing appropriate technologies and their adoption. Formation of farmer groups and supporting them to manage their own affairs is going to be an uphill task. The extension officers therefore are not only to be conversant with the technology but also should develop expertise to manage groups which need considerable degree of exposure training, etc.

The role of extension in the agriculture in general has to be commodity based. However, the skill development for forming and nurturing community based agencies and transforming it to agribusiness consortiums has to be made applicable across commodities.

An interactive bottom up approach is expected to pay dividends. Research - Extension - Farmer linkages need to be strengthened and thrust should be on net farm income which requires diversification. However, in the context of plantation crops, diversification need not necessarily be multiple cropping or mixed farming. Value addition and tapping ancillary sources of income for eg. honey and rubber wood in rubber besides improving quality of produce can increase net farm income. Extension personnel need to be oriented towards this. Market information becomes critical. Through use of IT enabled services and networking of the producer organizations, the extension officers should perform the role of change agent in true spirit in the changed context. A decentralized and participatory extension system ensuring interagency linkages can only be successful in the long run. Though, participatory extension management is being talked about, a serious attempt to bring in holistic change in the system is yet to happen.

Agricultural extension is hampered by its isolation from the general development and lack of willingness to adopt technologies which have been tried and tested successful in other development programmes. Rather than as mentioned earlier, a conduit for transfer of technology the role of extension officers, particularly in the public funded extension system should be that of a specialist with necessary skills to carry out programmes for validation of research in a localized context. Some of the concepts tried and tested successfully in other countries such as Area of Expertise (AOE) could work very well in plantation crops where an appropriate linkage between research and extension and farmers could be established. The public funded extension system should be available to provide specialized service and it is time that the government delinks from the village level extension which probably could be handed over to local bodies or NGOs.

IT Enabled Services

The concept of virtual university is of paramount importance particularly in the case of commodities, prices of which have a strong bearing on the international price movements. The extension services should be linked to the virtual university which maintains a demand driven database management system. Here again extensive education programmes for farmers and training programmes for extension officers is critical.

Policy initiatives

Apart from this for a thorough revamping of the extension system in the country, last but not least evolving appropriate policies is critical and the policy makers are to get convinced about the importance of extension in the changed context. The general feeling that investment in R&D can bring in the desired changes is not true. An efficient line of change agents is inevitable to translate the concepts and findings into action. The stagnant productivity in the country in many areas has been as a result of a stagnant and dormant extension education system and an outdated extension management policy.

The extension by the commodity boards particularly that of rubber has had a few streaks of success, which could be adopted. The concept of Agri Business Consortium has been adopted successfully in rubber right from late 1980's. Though, cooperatives were tried as grassroots level extension system in 60's and 70's, due to a variety of reasons it could not succeed. From 1986 the Board promoted Rubber Producers' Societies (RPS), voluntary organizations of rubber small growers. These organizations registered under charitable societies act, number about 2161 in the country has had a good measure of success and there are certain RPSs with membership of around 150 – 200 farmers carrying out business running to more than a crore of rupees a year at the same time engaging themselves in training programmes and over all development activities. As individual RPSs are too small to undertake processing and trading on a large scale, private limited companies were formed in 1989-90 with the Rubber Board holding 51% of shares and RPSs holding 49% of shares. There are 17 such companies, of which 6 are engaged in processing and 11 exclusively for trading. These companies have had impact not only on ensuring better quality and fair price for the members but also could influence the sector to a great extent. As small holdings dominate the sector, changes to be brought in line with the international market may be difficult in a crop like

rubber without such institutional arrangements. Lifting of quantitative restrictions have led to imports and to maintain demand – supply balance in the country need to export and to compete in the international market both in terms of quality and quantity becomes imperative. Such institutional arrangements with active involvement of producers are extremely critical to ensure fair trade and insulating them from the possibilities of exploitation.

Opening of market have led to emerging of new technologies and farmers will not be able to cope up with the pace of development and diversities unless new technology is in alignment with new realities. This needs training of farmers and empowering them with institutional development. With appropriate strategies it has already been proved that even the weakest of target groups can be encouraged to take up technology demanding activities. The case in point being rubber based rehabilitation programmes for tribal shifting cultivators in the North East which has won appreciation at many levels.

Role of public extension in the context of globalization and privatization cannot be undermined and it should be strengthened which otherwise will lead to serious damages. Appropriate investment and policies for HRD therefore need to be evolved in the plantation crop sector, which is more prone to vagaries of international trade.