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AMEF facilitates capacity building of its partners by learning and sharing through structured programmes such as FFS and participatory processes like PTD, field visits, field days, workshops, seminars, and by facilitating formation of crop based working groups and Stakeholder Concerted Action platforms. AMEF fosters effective networking with NGOs and farmers groups and by building institutional linkages to strengthen and sustain the development processes.



Central Unit

AME FOUNDATION

No. 204, 100 Feet Ring Road,
3rd Phase, Banashankari 2nd Block, 3rd Stage,
Bangalore 560 085
Phone : 26699512 / 26699522
Fax : 26699410
Email : amebang@giasbg01.vsnl.net.in
Website : www.amefound.org

Area Units

Andhra Pradesh : Anantapur
Karnataka : Chikkaballapur, Dharwad
Tamil Nadu : Dharmapuri



Reformulating The Agriculture Extension System

AME is devoted to promoting ecological agriculture as a means to livelihood improvements and environmental stability

R. Dwarakinath



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Vision

AME subscribes to a global, socio-political and economic system, which affords just and equitable opportunity for all, in the development process. AME recognizes that in the prevailing circumstances, the worst affected are a large number of disadvantaged families dependent on farming in rain fed areas, with a future rapidly going out of their control. AME believes that sustainable livelihoods for all are attainable through a systematic ecological approach to the development process.

Mission

AME is committed to realizing its vision through a holistic perspective in all its endeavours. AME will work towards sustainable livelihoods through innovations in technology, harnessing indigenous and advanced knowledge systems. AME will promote sustainable agriculture and natural resource management systems that address issues of ecological degradation. These developments will be disseminated widely for empowering the resource-poor and disadvantaged farm families and communities. In generating these alternatives, AME will integrate the needs of social development including mainstreaming of gender and equity issues. These efforts will be complemented with the facilitation of collaborative and participatory processes for both effective dissemination and advocacy.

AMEF Policy Advocacy Series includes opinions, views and experiences relevant for consideration in the context of policy formulation. These are either based on authors's own views or based on AME's experiences, but, consistent with the organisation's overall vision and mission. The series is meant for wide circulation among those interested in addressing issues related to agricultural development and seeking alternative view points.

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Reformulating The Agriculture Extension System

R. Dwarakinath

This paper is India-centric.

*Systematic agriculture extension service
of the Green Revolution days is just a memory now.
For, the growth rate in agriculture has slowed down,
even as the national economy is surging forward.*

*As such, an intense search is on for alternative approaches to
agriculture development, including a new extension system.*

*This new system, evidently, has to be different in its goals,
structure and strategy to meet the many challenges.*

This paper is an exploratory effort with this end in view.

Agriculture Extension System (AES) in India had its glorious days during the Green Revolution (GR). It had a key role to play in achieving a phenomenal progress in agriculture that was witnessed during this period. However, in looking back, it has to be reckoned that this historic success, that the nation is proud of, is as much due to the commendable contribution of the extension system, as it is due to the rare combination of circumstances in which the extension system came to play its part.

Extension service became the need of the hour

The nation had to face an enormous food deficit in the early years of Freedom. But, for taking some strategic development initiatives in agriculture, there was little experience to fall back upon. For, the past was essentially made up of a “stagnant agriculture,” built upon the experience of generations of farmers. This traditional agriculture, of course, had its own merits, but was found to be grossly inadequate to meet the new challenges in the wake of the Second World War. The Grow More Food Campaign, too, as a national venture, could not make a dent in the huge food problem.

But, the nation, coming out of a long colonial rule, was brimming with enthusiasm. Not only the devoted freedom fighters now leading the government, not only the bulk of the government employees, but also a vast range of people manning the non-government agencies were keen to play a part in dealing with the crisis. The crowning factor, however, was that the rural population, largely made up of illiterates in remote villages, un-reservedly pitched in to do their bit in this national effort. This way, there existed at this point of time, a rare and receptive general situation in the country, particularly in meeting the food crisis. Into this situation a new extension service was called in, which was made up of an army of devoted, hard working rural youth, having only a minimum of education to their credit. In a remarkably short time, these boys and girls – Gram Sevaks and Gram Sevikas -- were able to bring the new agricultural technologies, with high yield potential, to the doors of thousands of farmers.

Also, there is something special about the GR technology. In reality, this revolution was a “food grain revolution,” rather than an “agriculture revolution.” It was, in fact, a simple but unique innovation, based on 'seed and fertilizer' combination, focusing on “crops and yields.” It was capable of enhancing crop yields two to three times the normal. It was so un-complicated that even the ordinary rural boys and girls, as Village Extension Workers, could not only grasp the technology quickly but also demonstrate its efficacy on farmers' fields. Again, this technology was that simple that even the illiterate lead farmers could quickly absorb and adopt it, in its essential features. This is another reason why this revolution could spread so rapidly. Thus, the success of the green revolution has to be seen in the larger context of a demanding national need, a simple, prolific technology, and a diligent, devoted extension service benefiting from a vast popular support.

Green revolution encounters problems

In the meantime, vast changes have taken place in rural life, in the last six decades. Farming too has undergone a transformation in many ways. Hence, in looking for an effective AES, appropriate to meet the new challenges, we should appreciate that, even though the simple extension system of the past, manned by the multi-purpose extension workers, deserves all the credit, it does not effectively match the prevailing needs. It is necessary, therefore, that the needs, complexities and opportunities in a fast changing agriculture of today are adequately assessed, and the modifications of the existing extension system are forged, with due care and foresight.

Green revolution, in deed, was a specific solution to a special problem.

GR has been able to make a remarkable but limited impact on the agriculture sector, so far. It fared well mostly in favorable farming situations like the irrigated areas. Also, it fared well where substantial money investments for the purchase of expensive inputs were possible. Hence, it was helpful only to the well-to-do farmers who could afford some money investments in farming. In addition, for deriving the full benefits from the new technology, farmers had to have a better managerial ability. Thus, the GR technology may be seen as beneficial largely to such elite farmers who had irrigation, investment ability and superior managerial competence. This also means that GR bypassed vast stretches of dry farming areas and a huge population making a living in dry farming.

Then, a look at the responses that the green revolution generated as it progressed, is revealing. Farmers received it with great enthusiasm in the beginning. But, soon there were a few negative reactions to the innovation. Generally, this revolution is regarded to have lasted from mid 1960s to mid 1980s. Its beneficial impact was widely visible during these decades. But, even by the end of 1970s, the second-generation problems began surfacing, first as persistent pest-disease problems, and then as signs of input fatigue, resulting in declining yields. By late 1980s, GR began facing unsavory criticism, as yields stagnated, production costs mounted and farm incomes declined.

It is in response to these happenings that agriculture development began seeking to widen its focus from solely food crops to diversified cropping systems; and, to meet the criticism about the over emphasis on purchased inputs, it began stressing mixed farming and integrated farming systems (IFS). Also, as could be expected, the saleable surpluses generated by GR, which were well below the demand levels in the local markets in the early stages, later began exceeding the demand levels, causing market gluts and price slumps. In meeting these challenges, the extension system found itself quite helpless.

As such, in the later years, Indian agriculture became a different story. As the population growth remained unabated, the production base in farming began shrinking with the holdings becoming smaller and farmlands getting impoverished, the effects of the resource fatigue and farmer fatigue became extensively visible. As a result, for the last two decades or so, serious efforts are being made to formulate some remedial measures, including reshaping the extension system.

Of the many suggestions and recommendations put forth in this regard, there are six prominent ones that get repeated – improving irrigation, investments, infrastructure, research and extension, economic incentives and market facilities. Two points become very obvious here. All these facilities, in fact, are already there. What is perhaps intended is expanding them to a larger extent. But, they will really be in the 'more of the same' category. Also, it is clear that these recommendations are born essentially out of the macro economic perceptions. If we look a little beyond, there is hardly any effort seen to relate these recommendations to the micro economic, ground realities. Not surprisingly, the results obtained from these initiatives, as yet, are not meeting the expectations.

A different kind of agriculture to serve

The slump in agriculture growth rate has become a matter of concern even at the top. In October 2005, the Prime Minister, addressing the agricultural scientists in a national meet, repeated Jawaharlal Nehru's statement that "Everything can wait, but agriculture cannot wait." A declaration was made on this occasion to the effect that the Government attaches the highest importance to agriculture for achieving a 4% growth rate, to support a 10% growth rate in the national economy. All-the-same, for many years in the Tenth Plan, the growth rate in agriculture remained around 2%. For, in the wake of the GR, many drastic changes have occurred in the farm sector, which are not duly taken note of by the policy makers and administrators. Let us take a look at some of these.

What do we look for as the end product of the extension efforts? In simple terms, people working with farms, within a given climatic and economic environment, must be able to obtain optimum and sustainable returns from their farms, having certain natural resources as the production base, and using the available technologies. For this purpose, in the development process, the extension system must play an enabling role, helping farmers in husbanding the natural resources and availing the production technologies with optimum efficiency. With this goal in mind, extension must work with farmers to widen their horizon, enrich their knowledge and upgrade their abilities.

In the meantime, the very purpose of farming is seen to have undergone a transformation. What was a simple family pursuit for subsistence became a surplus producing venture, with the induction of the GR technology. This has again become a market oriented enterprise, with a compelling need for money incomes. Later, with the increasing dominance of WTO, commercialization of farming has become inescapable.

Farming today is highly externalized. It is no more the self-reliant family pursuit where seed came from the previous harvest, manure from farm wastes and labour from the joint family. Farmer is now caught between greedy input dealers and swindling market middlemen.

In a sense, what has become crucial is the **managerial ability** of the farmers. Here, there are two points that need attention. One, the managerial ability required would be of a simpler order when farming is a family pursuit for subsistence, and has to be of a higher order when farming becomes a commercial venture. Second, in any farming community, there will be a few elite farmers, who with their better socio-economic endowments, will be able to quickly acquire the needed managerial abilities, while the others, non-elites forming the bulk, will be relatively slow in making progress towards attaining this kind of competence.

In formulating a new extension system, these realities have to be recognized adequately. On the one hand, going beyond the past "crop-yield" mindset, it is necessary that, in the future, the extension service strives to enable farmers to become more efficient in utilizing the natural farm resources in a sustainable manner, and make a more effective use of the available technologies and inputs. Similarly, since the **top-down approach** is not working, in the absence of the yield-multiplying technologies, it is necessary, in the future, that attention is devoted to a **need-responsive approach**. Also, it is necessary to mount appropriate efforts in reaching the un-reached segments of farmers, like the middle level farmers, and to tap the untapped production potential in the vast dry farming areas.

Farm life too is changing rapidly

The Indian farm world is a totally transformed one, today. It is essential, therefore, that the new extension system gains a good understanding of the situation, as it prevails and as it evolves. Since Independence, it is the third generation of farmers in position now. Most of them have lost touch with good traditional farming practices of their fore fathers. Also, many of them

"Present is devouring the Future"

Soil, Water, Biodiversity are the most precious endowments of human kind. But, in the careless way we are using them at present, we will need in another four decades twice as much of these resources, as of now.

have not fully grasped the principles and practices of modern agriculture. As a result, especially the middle level farmers do not know how to succeed in the present day circumstances. As such, to be effective, the new extension system must properly recognize the basic features of this changing agriculture.

- **The purpose in farming is changing:** Farming in the past, as a family pursuit, was mainly a *subsistence farming system*. Pushed to overcome the national food problem, it became a *surplus farming system*, availing the GR technology. Then, as the money economy overtook the barter economy in rural life, and as farmers began looking for cash incomes, a *market farming system* emerged. Now, under the WTO regime, it has to become a *commercial farming system*.
- **The production base is degenerating:** As the pressure of population, live stock, urban demands and changing life styles increased on rural land-based resources, the on-farm and off-farm vegetative cover got depleted. Due to endless erosion and poor maintenance of farmlands, farm productivity declined. On and around the farms, the surface water bodies began disappearing. With the powerful modern water lifting devices, ground water levels kept sinking every day. Under these conditions, with an uncertain rainfall pattern, not only the vast stretches of rainfed crops, but even the deep rooted tree crops start withering.
- **Aspirations of farm population are rising:** Farming communities are moving on a fast track now. Village isolation is, in fact, a thing of the past, with expanding road links and media reach. Literacy levels are rising, and exposure to urban life is deeply impacting the rural life styles. The “shrinking world” is becoming a reality. Meanwhile, farmers have begun to feel that they are denied of a fair share of the public good the country has come to enjoy. As a result, their mindset is changing, with many farmers seeing farming as un-remunerative, boundless drudgery.
- **Emergence of new technologies slackens:** The high profile technologies of the GR days are no more there. Nor can we expect such technologies, every day. Thus, “technology push” justifying the “extension push” is missing. Moreover, the GR technology is found basically unsuitable to dry farming and for resource poor farmers. Hence, we have to look for alternative farming practices like the LEISA (Low External Input Sustainable Agriculture) approach, to sustain development.
- **Capacity building becomes the crux:** We know “farming is what farmer does.” All other stakeholders in agriculture development are his enablers.

Also, we know that farmer alone is the **end user** of the natural farm resources, the new technologies, and the development opportunities around. Then, again, in all the farming communities there are a small number of farmers who, on account of their individual abilities and socio-economic circumstances, are able to quickly emerge as better managers in farming. At the same time, there is a large segment in the farming community, which, by nature and by circumstances, remains lagging behind as risk-shy conformists in their farming behaviour. Since this segment too has the innate ability to become better farmers, given the attention, special extension efforts are to be devoted to them. This is likely to result not only in increased overall production, because of the vast farm population and farm lands involved, but will also lead to improved livelihoods of a large part of the farm population.

Quite often the difference between Poverty and Plenty is the man and his will.

Foundations of the new extension paradigm

There is a well defined objective for agriculture development in which the extension system plays a critical role. Since development is possible only by bringing about changes in the prevailing situation, such substantive changes are often made possible by building a link with appropriate external sources of knowledge in agriculture. The extension system is such an established linking mechanism that relates useful, practical knowledge to the problems, needs and opportunities of farmers. Then, purposive efforts become possible here only when the operational context is understood adequately.

It is obvious that the money economy has entered the farm sector from end to end. It is visualized, therefore, that the future mode is business farming, in which **costs and returns** will serve as the basic criterion. But, this business farming has to be conducted in the particular format of “sustainable agriculture,” where exploitative use of natural farm resources and over use of purchased inputs are carefully avoided. Also, increasing the cost-effective yields will be seen as the first step towards increasing incomes. Further, to be competitive in the market place, a different world for many farmers, unit costs and **product quality** will get primary attention. From this viewpoint, some issues are strategic.

Of the many players in agriculture development, the two most important ones are the Farmer as the producer and the Government as the enabler. The enabling role has two aspects creating the necessary conditions for development, and empowering the farmers to make use of these opportunities.

Recognizing the ground realities

Farming and agriculture: There was a time when these two terms meant nearly the same thing. But, today, *farming* connotes the area-bound production activity in the sector, while *agriculture* encompasses farming along with activities like input supply, processing and market operations.

Irrigated and dry farming: These are two distinctly different production situations in the sector, requiring not only different technologies and inputs, but also different kinds of management abilities on the part of the farmers.

Purpose served by the sector: It is well known that the sector serves two basic purposes -- *wealth creation* through commercial farming, and providing livelihood to a vast rural population mostly in dry farming.

Elite and non-elite farmers: Farming communities are not homogenous. At least three distinguishable segments are visible – a small segment of well-endowed, *innovative farmers*, who are quick to make adjustments in a changing world, a vast segment of *middle level farmers*, who are poor in resources, with limited external exposure, and feel lost in a changing world, requiring some hand-holding to cope with the situation; and a sizeable group of slow adopters who, remain at the end of the change process, progressing mostly by imitation in the long run.

Emerging people's initiatives: In recent decades, most of the elected governments are seen to be coalitions. In situations where the demand for public service is expanding for meeting the people's needs, it is found that these governments are unable to deliver adequately. Realizing these realities, of late, some determined people are coming together to address their immediate needs, on their own, wherever possible. SHGs happen to be an excellent example. This trend in the rural communities has to be carefully nurtured and harnessed in extension undertakings, also.

Ensuring goal clarity

Maintaining the current progress: At present, about one third of the land under cultivation is having irrigation. The remarkable production growth in agriculture seen earlier has happened mainly in this kind of farming situations. Here, there is some more scope for further improving production efficiency. For instance, the water use efficiency under the public irrigation systems is estimated to be only 30%. Similarly, it is assessed that there is room for improving the efficiency in case of both the input use and the production management.

Adding growth focus – on dry farming: So far, dry farming has received mostly the diluted irrigation technologies. While intensive, even if costly, technologies are alright for irrigated situations, dry farming would require essentially incremental technologies that the resource poor farmers can see, trust and accept.

Because of the vastness of this production area and the enormity of the farm population striving here for a living, even a marginal improvement in productivity would add substantially to the national production, apart from adding stability to farm livelihoods. Research has already produced some useful technologies in this area, which in combination, not in isolation, can bring substantial benefits.

Adding growth – alternative farming practices: It is well known that dry farming is peopled by resource poor farmers who are there mainly for a living. When offered with versions of GR technologies, they are reluctant to accept them not only because they are expensive, but also because they carry some perceived risks. Therefore, the route they are more willing to take is through refinement and enrichment of the traditional practices with suitable external technologies, which are most of the time incremental in nature. The process by which they move one step at a time is through the well-known Participatory Technology Development (PTD).

Adding growth – empowering middle level farmers: Experienced extension specialists have observed that the farming society consists of at least three segments. The top, creamy layer is made up of innovative farmers, who, on account of their socio-economic endowments, turn out to be better managers of farming, moving with the times. The next segment – middle level farmers – who make up the bulk, are often poor in resources. Even though they have the innate abilities to be better producers, they are often hesitant because of their small holdings and their inability to take risks. But, with appropriate extension strategies and some amount of handholding, it is possible to bring them into the development mainstream. Building their managerial ability is the crux. The last segment is the slow adopters, will ultimately be overwhelmed by the changes around them.

There is a huge population trapped in dry farming for a living, in degraded ecosystems. In a fast changing world, they have not been able to find their way for survival. Working with these men and women, searching for eco-friendly, alternative farming practices, and additional income sources has become a great socio-economic necessity, today.

Serious challenges to be addressed

Stabilising farm livelihoods: The country had a large population in farming, all along. Over the years, even though the economy expanded at a good pace, the surplus farm population was not shifted to other sectors. As such, a large population remains stuck in farming. The skills and mindset of these people do not match the emerging opportunities in trade, industry or service sectors. For, these sectors have now become more capital intensive and technology intensive, but not labour intensive. Therefore, the main development efforts today have to be focused on widening the employment opportunities in farming, around farming, as well as in non-farm rural occupations. In this regard, harnessing dry farming as the second front in agriculture development seems to be a rational approach. While this may not promise a prosperous farm life, it at least ensures 'livable life', as the dry land farmers have nowhere else to go.

Contributing to economic growth:

The dominant thinking in the national planning circles is that, if the overall economy has to grow at about 10%, agriculture economy has to register about a 4% growth rate. But, this is not happening. Hence, if the farm sector must not become a drag on the total economy, a more vigorous progress has to be seen in the farm sector. A serious re-look at the entire agriculture development approach, including special attention to dry farming, is therefore warranted. The visible opportunity clearly indicates the need for tapping the untapped potential in dry farming, harnessing the production ability of the middle level farmers and adopting the incremental development approach.

Rainfed areas, constituting the major poverty geography of the country, are facing a historical neglect and discrimination in terms of receiving public support and investments. Rainfed-farmers, in particular, are facing the brunt of this neglect. The crisis is no longer an issue of supporting agriculture. With unprecedented levels of farmers' distress, it is now a livelihood issue affecting millions of farmers.

Alternative farming practices: As seen earlier, the green revolution technologies are no more in the fore-front. As such, alternative technologies especially for the dry farming situations have to be harnessed. Dry farming being the most fragile eco system today, farmers are generally poor, and their holdings are small and degraded. Conditioned by these circumstances, the farmers have become not only risk-shy but also reluctant to go for the expensive external technologies. As such, particularly the middle level farmers in dry farming have to be assisted and guided, at least in the early

stages, through a process of locally generated alternative farming practices – a combination of the trusted local practices with enriching external practices - - that ensure incremental betterments. An established process for this purpose is the PTD methodology, as seen earlier, in combination with PRA and FFS processes. .

Empowering the middle level farmers:

As noted earlier, the innovative farmers, a small part of the community, are more or less able to find their way to survive and thrive in a changing world. But, it is the large segment of middle level farmers that are often found lost in finding their feet. But, even with their holdings that are small and degraded, it is possible to mobilize the available knowledge to generate some locally acceptable and affordable alternative farming practices, with their own efforts. To start with, this is the only practical way to move forward in this situation. Hence, even in dry farming, some simple combination of measures is possible, like *in situ* moisture conservation, improved soil fertility, modified crop production practices, additional bio mass generation and supplementary income generation activities.

Doing and getting things done are important. But enabling and empowering people who do the job is more important. This is really the Extension



Harnessing new sources of growth

Farming, in its basic form, is just a skillful utilization of the natural biological processes of plant growth, with the support of certain natural resources like soil, water and bio diversity, in a given climatic situation. Sometimes, farming deals with two biological processes, related to plant and animal production. Over the ages, man has learnt to manipulate these production processes to some extent, but without being able to totally replace the biological processes. In this course, his attention is often devoted to plant and animal breeding, again within certain natural limits, along with the use of some production inputs and practices. In recent times, obsessed with the green revolution technologies, he has focused essentially on two aspects of farming – new biological material and powerful chemicals -- almost completely neglecting the husbandry of the natural farm resources. In fact, farming does not begin with sowing the seed. It begins with the proper care and management of the natural farm resources, as the production base. In fact, the traditional farming systems devoted much more attention to the management of the natural farm resources than what is commonly seen in the present systems of farming.

Viewed from this perspective, it is possible to make certain critical observations pertaining to the present day farming. The growth in agriculture can be influenced by the farmer, within certain limits, by *using better biological material and added inputs*. This influence can be enhanced by *carefully husbanding the natural farm resources*. Also, it is possible to enhance this influence by fine-tuning the managerial abilities of the farmers ensuring better operational efficiency in terms of



combination, sequencing and punctuality. It is seen that efficient farmers are constantly improving their farming, by enhancing both the input productivity and resource productivity, with upgraded managerial productivity. HRD, thus, becomes the crux of the matter, for the future.

Efforts in agriculture development in recent years were focused mainly on one of these aspects, namely **improved input productivity**. This was the thrust in the green revolution, where securing better returns to seed, fertilizer and technology inputs was the main effort. Now that the crop yields have begun to stagnate, more deep-going insights into development have become necessary, leading to **improved resource productivity**. However, these two goals will become more effectively attainable if they are associated with **improved managerial productivity**.

Input productivity: Enhancing farm productivity beyond its natural limits is the aim here. This was the focus of the green revolution. This is a relatively easy task, since it is generally pursued in assured farming situations like irrigated areas. Inputs like seed, fertilizer and technology of better quality will in any case yield better results, in the normal course. The progress in agriculture seen so far is a product of this kind of development approach.

Resource productivity: This task of improving the resource productivity is the next goal to attain. The natural farm resources, under a given climatic situation, are the soil, water and bio diversity. Enhancing the productivity of these resources under irrigation is comparatively easier than under the dry farming conditions. However, there are a few simple technologies, generated by research, which can be availed as the future source of growth.

Management productivity: Attaining better returns from both the added inputs and the natural resources requires better managerial abilities on the part of the farmer. Better farm managers are improving productivity in these areas. But, all farmers are not the same in their managerial abilities. The focus here is ensuring better operational efficiency by way of combining, sequencing and punctuality of the production operations. The non-elite farmers surely require focused extension support, in this regard.

The extension task is, of course, helping people with new knowledge. Since change is always the vehicle for development, the nature of extension work is helping farmers to adopt the necessary changes. But, farmers are unequal in their abilities to change. While a few farmers are quick in their adoption behavior, a large majority are not endowed with the same ability. It is here that the extension system must make an extra effort. It must not only create access to new knowledge but must also enable them to use that knowledge adopting changes, they feel desirable. It has to identify here the two groups – the fast moving and the slow moving categories -- and help them according to their needs. This is quite essential in the

Problem of the new millennium
Matching land resources with growing needs of huge populations

present day situation, as otherwise agriculture development will not become more inclusive, when the majority is bypassed. Thus, after the green revolution, helping the middle level farmers becomes the added extension task. As such, these farmers, trapped in dry farming for a living, and cannot go in for the expensive technologies; have to be helped with options like LEISA technologies.

People's initiatives, a great opportunity

It is already seen that the existing public extension system is unequal to the enormous development challenges in agriculture, today. Evidently, the simple, single-purpose extension system of the past is unable to handle the multiplicity of present day problems and needs, particularly in the context of a fast changing agriculture. The agriculture sector today is made up of two distinct segments – *the farming segment* where the production activity takes place; and the *non-farming segment* which, in addition to the farming segment, covers a range of backward and forward linkages, providing the pre-production and post-production support services to farming. At the present stage of Indian agriculture, development can gainfully begin from the improvements in the farm sector.

But, the existing situation does not readily lend itself for this initiative. The extension system in the past flourished, relying on the high profile and much sought after crop production technologies. Today such technologies are not forthcoming. The present day technologies, each promising only meager benefits, and not much reduction in production costs, are difficult to popularize among farmers, in their prevailing mood. Also, the enterprise diversification and market responsibilities in the farm sector, that are now very crucial, demand an entirely different kind of technical competence on the part of the extension personnel. This is not there at present, the extension system having, of late, suffered considerable neglect in terms of manpower renewal and financial support. As such, today the extension system suffers not only in technical competence and financial support, but also, quite extensively, in self confidence and morale. The task before the new AES, therefore, is to combine the technologies to make them acceptably productive, and rebuild the extension competence to address the development challenges.

At the same time, it is observed, the farming population too has changed enormously, in its size as also in the multiplicity of its needs. Apart from this, the life styles and aspirations of this population are also changing fast, due to rising literacy levels, media reach and the exposure to the outside world. Some population groups are becoming very vociferous and demanding. On the other hand, particularly with regard to cash farming, production economics, post-harvest practices and market operations, the present extension system finds itself not adequately equipped. As a

result, the extension system often falls back, for survival, on the convenient practice of providing some personal services to a few farm leaders who have public visibility.

However, there is one very positive development in the rural society today, arising from the sixty years of democracy. Of late, many *people's initiatives* are surfacing, where groups of people come together to meet whatever of their needs they can, with whatever energies and resources they can mobilize. Perhaps, this is essentially for the reason that, in most cases, the multi-party alliance governments are not in a position to provide the kind of services that different sections of the society are asking for. Sensing this trend, some determined people have come to work as self-help groups to help themselves through efforts like small savings, mutual assistance and social service.

Having tasted some well-earned successes in doing whatever they can do, for their own good, such people have gained tremendously in self-confidence. They have also received all round appreciation. SHGs are an excellent example in this regard. Some of them have taken up simple rural development activities, and lately even farm improvement activities. They have become widely accepted. Here, therefore, is a great opportunity for the new extension service to work in association with such agencies, making use of them as the effective CBOs. .

Another kind of rural institutions that could be gainfully brought into extension ambit are the Panchayatraj bodies. They have a mandatory responsibility for agriculture development, though, so far, very few have come out with a serious effort in this regard. But, there is a potential to be tapped here, since some of the members are seen to have a keen individual interest in promoting agriculture, if suitable guidance is available. The new extension system can seriously explore the possibility of involving them. .

With the foregoing in view, one may conclude that the days of the simple, single-purpose extension system are over. In fact, if the old extension system were allowed to persist, it will be at an enormous cost to the agriculture sector and to the farming society. On the other hand, the situation appears to be ready now for an enlarged and adequate extension system, to be operated by a team of development agencies. There is, of course, a lot to learn from a new venture of this kind. But, again, it is high time that we made a serious beginning for this purpose.

Multi-agency extension system

Most of us still seem to believe that the extension system we need today is the same that worked so well during the green revolution. But, it is not a realistic thought. For, what existed at that time was an extraordinary situation of a huge food

deficit. Also, it was a simple technology that accommodated a **single-goal development effort** for crop production, in which everybody pitched in, with a unity of purpose. Now, things are different. Rural needs and aspirations have multiplied.

In this situation, no single extension agency, however competent, will be able to cope with the multiplicity of rural needs of the present day. More over, the kind of high profile, single goal technology that worked with a top down approach, is not in sight today. On the other hand, with six decades of democratic experience, people have come to realize the limitations of the representative governments of the day, and are willing to help themselves to the extent possible. The resultant picture is there for all to see.

Under these circumstances, it is quite logical to recognize the need for a **multi-agency extension system (MAES)**. It can more effectively respond to the rural needs, fostering and supporting people's initiatives, as relevant to the development goals. For the present, this MAES may be envisaged as one consisting of four key development agencies, working together as a team on a functional basis.

Public extension agency (ATMA) as a policy delivery mechanism:

Since the government keeps devising ways in which it could be seen as serving the farmers' needs, the benefits of such policies have to be reached out to the concerned farmers groups by this agency. This task cannot be performed to the satisfaction of the government by anybody else other than the government agencies. These agencies, including the mainstream development departments and agriculture universities, may get involved here, to work as a team, with other organizations concerned.

Panchayatraj institutions providing local development support: The PRIs have a mandatory responsibility to promote agriculture development, locally. In practice, very little of this trend is seen on the ground, as yet. But, occasionally we find some panchayats or individual members who realize the significance of this effort and are willing to participate, if they can. It will be worthwhile to create room for such bodies or members to play a part, as a starting point, under this system.

Involving the proven Civil Society Organizations (CSOs): The CSOs are otherwise known as NGOs. These are mainly voluntary social service organizations, and not profit making private organizations. They usually work in a chosen area, with chosen services to render. Some of them are also willing to play a role in agriculture development, since they have a wide contact with farm families. On the basis of their track record, some of them may earn a place in the multi-agency extension system.

Working with community based organizations (CBOs): CBOs represent the ground level people's initiatives. Many of them take birth in Gram Sabha sessions. Thus, they have their roots in the village community. Most of the time, they have demonstrated their willingness and ability to help themselves, and, then serve others around them. They have shown that they can very well survive, working together. They are acceptable to the whole or a major part of their community. Therefore, they offer the best opportunity to work with the local communities, if they are persuaded to join hands. The significance of such an effort would be enormous if it could kindle the hopes and harness the energies of even a minor part of the rural women and youth. Experience gained here will serve as the basis for future refinement of this team work.

Here is an excellent opportunity to create the much needed *operational synergy*, by enabling related development agencies to work together as a team, but without stepping on the toes of one another. It is a situation where agencies work together, side by side, with a shared goal and shared responsibility in chosen spheres, and sharing the experience for all members to learn.

For this kind of extension initiative, *district as the operational area* is considered as the most suitable one. The district panchayat playing an anchor role, this multi-agency extension system will be an effective means to meet the present day needs in agriculture development. The system could be further improved with the experience gained.

In conclusion, it has to be stated that the new extension system must recognize that the present day extension task is a vastly transformed one. Agriculture development, in deed, has become essentially a **shared responsibility** between the **farmers as producers** and the **government as the enabler**. Also, it is to be noted that the farmers themselves fall into two distinct groups – elites as wealth producers with commercial farming and the non-elites adopting livelihood farming. Future progress in the agriculture sector depends not only on improving the productivity of added inputs, not merely on improving the productivity of the natural resources on and around the farm, but, far more importantly, on the improved managerial abilities of both the farming segments. Thus, HRD becomes the key and the ultimate objective of the future extension system.

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