

**DESTINATION – FARMER
IN AGRICULTURE DEVELOPMENT
A Development Perspective**

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*In recent days, a disturbing realization is gaining ground
that the pace of agriculture development is proving inadequate.
Consequences are declining production and persisting rural poverty.
Strategies that were effective at one time are now found ineffective.
Naturally, we have to go beyond the 'more of the same' syndrome.
Second green revolution is being talked about again. Is it possible?
Where do we look for a solution?*

Keywords: Resource poor farmers, Rainfed agriculture, Dry farming, Farm productivity, Input productivity, Resource Productivity, Management productivity, Elite farmers, Middle level farmers

01 Years ago, in 1950s, Sri S.K.Dey, the then Minister for Community Development, used to say that community development is not a “brick and mortar programme”; it is a ‘human development programme’; it is a pursuit of “destination – man.” It means that man must not only be the beneficiary of development, but must also be the participant in development. For, otherwise, development of his circumstances may take place, leaving the man behind. It will then amount to ‘development for the man and not with the man.’ Admittedly, such a development will turn out to be hollow and truncated in the long run. In recent times, Dr. M.S. Swaminathan, as the Chairman of the National Farmers Commission, also emphasized this basic idea, when he stressed the need for a “human face” to agriculture development. This does not merely mean that the interest of the farmer must be the basic development goal, but it also means that **“the farmer must be a player in development.”** The farmer here could be a man or a woman. But, then, how do we strategise this profound development concept?

Purposive Development is an Intervention

02 Development is all about producing desirable changes in a given situation. In the past, farming was merely a way of life, a family pursuit in making a living. The knowledge for this kind of farming got built up locally, over the generations. Farming was essentially a self-contained system, with the seed coming from the previous harvest, the manure from the farm and domestic wastes, and the labour from the joint family. Most of the time, the producers were the main consumers.

03 But, in the early years of Freedom, the nation came to face an enormous food deficit. Addressing this problem became a pressing national need. At this stage, for undertaking some kind of remedial measures, there was very little experience to fall back upon, since the past was essentially a ‘stagnant agriculture.’ This kind of agriculture, of course, had its own merits. But, it was found to be grossly inadequate in meeting the challenges emerging after the Second World War. Even the hurriedly launched Grow More Food campaign did not make a big dent in the problem. Fortuitously, in mid 1960s, the nation came to have access to the phenomenal technologies of the **Green Revolution (GR)** that enabled us to overcome the problem.

04 The Green Revolution, in fact, is more a **food grain revolution** than an agricultural revolution. It is a unique but simple innovation, based on a seed-fertilizer combination, capable of enhancing crop yields two to three times the normal. It was a simple but impressive strategy that got quickly accepted by the farmers. It was simple enough to be grasped by an army of young rural boys and girls with minimum of education – as the Village Extension Workers – and to take technology straight away to the farmers' fields. It was simple enough for thousands of illiterate farmers in remote villages, with little exposure to the outside world, to accept and adopt it, in its essential features. In about two decades, from mid 1960s to mid 1980s, the country was able to lift the food production from about 50 mt to nearly 200 mt. The nation was not only able to gain food security, but also build a buffer stock, and undertake modest exports. It was, in deed, an extra-ordinary development intervention of the day in the agriculture sector.

GR Technology Succeeded in Specific Situations

05 Green Revolution was a campaign with a **limited focus -- crops and yields**. Here, for the first time in farming, substantial money investments became necessary, to purchase external inputs. At the same time, it also required assured farming conditions like irrigation, to minimize production risks. Further, its performance was outstanding wherever better management was also assured. **Thus, it benefited mostly the irrigated areas and resource-rich farmers, having better farming competence.**

06 In about two decades after its arrival, the GR technology had reached most of the potential areas. Even in these areas, it reached mainly those farmers who could adequately benefit from these technologies, who could provide the required inputs and management abilities. In other words, it bypassed the not-so-assured production areas like the dry farming tracts, and not-so-resourceful farmers, like the dry land farmers.

07 In the assured farming areas, the new technologies led to markedly higher yields very quickly, depending on the investments and management levels. Then again, sooner than expected, yields began leveling off. Gradually, **the second generation problems**, as they were called, began asserting. Soon, it was seen that mono cropping became a common practice. Over doses of chemical inputs became common, often in unbalanced combinations, neglecting the use of traditional organic manures. As a result, farm costs went up, while the yields stagnated and incomes declined. More disturbingly, farm products began carrying unacceptable levels of pesticides, ground water got polluted, soil biology got damaged and life chains in the farm ecology got seriously dislocated.

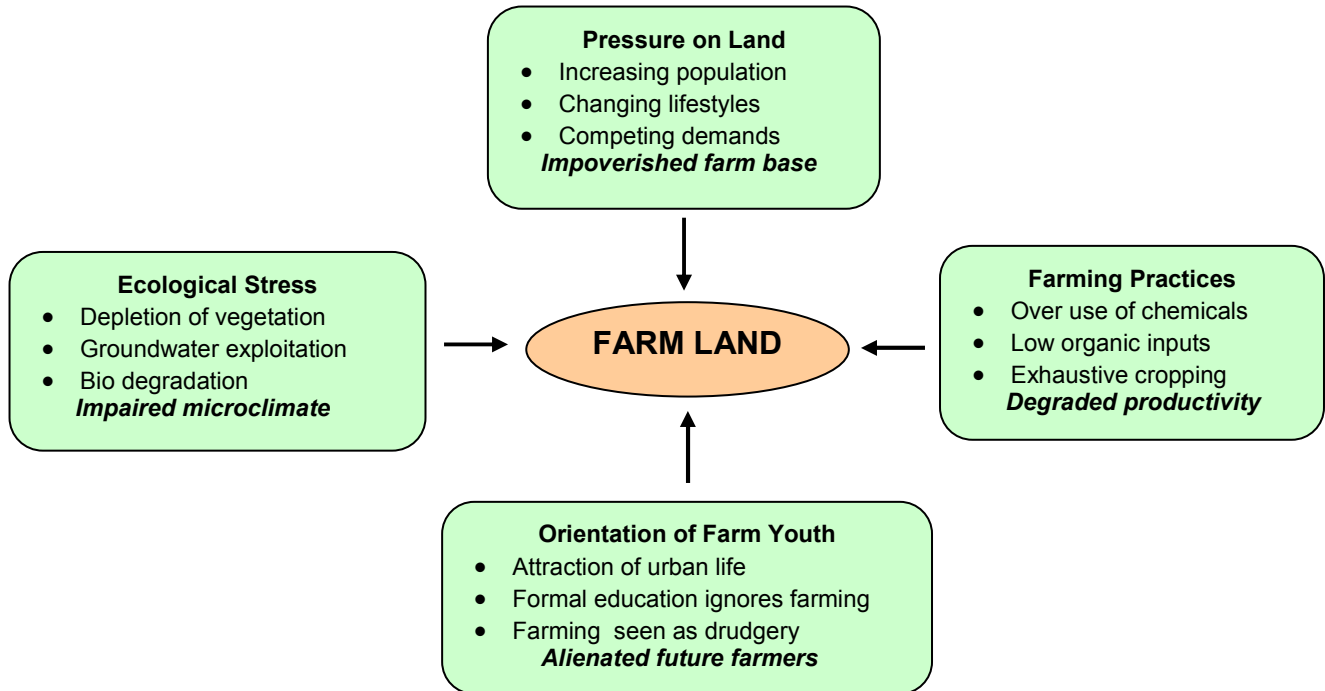
08 Thus, by mid 1990s, GR technology was seen to have exhausted much of its utility. It did benefit some farming areas by lifting the productivity levels; but even there some serious negative effects began setting in. over time. It had bypassed large dry farming tracts, where it was found unsuitable, and large segments of farming population who could not either afford or manage this technology. As such, subsequently, a situation emerged wherein the GR technologies were found to be not very useful, any more. Also, it was seen that after attaining the much needed food security, there was a pervading complacency, and a marked lack of support to GR extension systems.

Development Circumstances have Changed Vastly

09 In the last six decades since Independence, the rural sector has undergone an enormous transformation, in many dimensions. These changes have a direct bearing on

the kind of development goals and strategies that are relevant today. Future development ventures are likely to be less effective, if they are not taken into account.

STATUS OF FARMING TODAY



1. The production base: The rural population has increased more than three times. The farm holdings have shrunk in size. The farm ecology, both on-farm and off-farm, is vastly degraded. The third generation of farmers, now in farming, has lost sight of many sound traditional farming practices. Rising literacy, media reach and urban contact are pushing the rural aspirations beyond grasp.

2. Farming community: The largely homogenous village communities have now become highly differentiated social systems. The creamy layer of resourceful farmers, with their better socio economic status, are relatively well off. The larger segment of resource poor small farmers, with their inward-looking mindset have not been able to effectively cope with the changes around them.

3. Development technologies: The set of technologies that brought glory in the past, are now a spent force. It is now not effective in the case dry farming, and the resource poor farmers with only the traditional abilities of farming.

4. Sources of growth: Green revolution relied upon “returns to inputs” including seeds, fertilizers and agronomy. Now, in addition, it is possible to generate “returns to natural farm resources” and “returns to managerial inputs.” Together, the three factors can add substantially to production growth, even in dry farming.

Sources of Growth beyond Green Revolution

10 Many farmers today set aside farming as an un-remunerative drudgery. But, things cannot remain that way. Opportunities for economic growth in the country are rated high. The aim is a 10% GDP growth rate. For this, the agriculture sector, whose share in the GDP has slowly declined below 20%, still having a large population of about 60% making a living here, must move towards about 4% growth. But, in recent years, the growth rate was only around 2%. Thus, mounting a vigorous development process in agriculture is not only an economic necessity, but also an imperative welfare measure. For these strategic reasons, new sources of growth in agriculture have to be urgently identified and put to work. Here are some visible ones.

1. Fuller use of the GR technologies, as a source of growth: So far, much of the yield potential of the GR technologies has been tapped. This is mostly in irrigated areas. Still, some more marginal potential remains to be tapped through better farming practices. There are some new crop varieties emerging, marginally superior to the existing ones. There is scope to improve the input management, including use of micro nutrients. Water use efficiency also requires attention. System of Rice Intensification (SRI), for instance, almost doubles the water use efficiency, among other benefits from better agronomic practices. More over, irrigated areas, developed with huge investments, happen to be the main stay in Indian agriculture. As such, it is logical that every agriculture development venture is built around irrigated farming, as the keystone.

2. Production potential in dry farming, as a source of growth: Decades of preoccupation with Green Revolution for food security, confined to assured farming areas, has denied dry farming areas of the development attention due to them. These are vast tracts, with a large population there for a living. Over the years, due to the growing pressure of an expanding population, the vegetative cover around these areas has been depleted. In recent years, the ground water has also come to be over-exploited. As a result, the natural biological systems too have been seriously dislocated. These are some of the present features of dry farming areas, as very fragile eco systems in the agricultural sector. But, even then, these extensive farming areas have to be rehabilitated for two eminent reasons – this farm population has nowhere else to go; and, low cost technologies are now available to make these farms reasonably productive. Because of the vastness of this resource base, even a modest production improvement will add considerably to the national output. This also amounts to improvement of livelihoods of a large population.

3. Alternative farming practices, as a source of growth: When all attention was on the green revolution, even the sound, established traditional practices in dry farming were slowly lost sight of. The third generation of farmers now in farming, after Independence, does not even know many of these practices, including the drought-tolerant small millets. The high-profile GR technologies are not suitable here because of the expensive purchased inputs, the notable risk element, and the higher level management involved. In this context, there is an emerging trend, where the farmers get involved in generating some modest, **acceptable and affordable Alternative Farming Practices**, through Participatory Technology Development (PTD) processes. It is essentially an effort that seeks

to enrich useful traditional practices with suitable research knowledge. These are low-cost and low-risk practices, seen as non-threatening innovations.

4. Empowerment of middle level farmers, as a source of growth: The farm sector today has evolved from a system of family farming into two separate systems of **market farming** and **livelihood farming**. It is well known that the farming communities today are not homogenous social systems. The hierarchical nature of these communities is described in many ways. But, a convenient way is to visualize a community in three segments – (1) a creamy layer of **elite farmers**, small but a dynamic segment, noted for its knowledge-seeking, venturesome behaviour; (2) a large segment of **middle level farmers**, potentially capable but risk-shy, mainly information users not seekers, not very out-going, but they do respond to useful guidance; and, (3) lastly, a section of **slow movers** who do not go after change but remain to be slowly get overwhelmed by changes around them. The elite farmers generally have a better socio-economic status, a larger world view, wider contact and mostly get into **market farming**. While, normally they can take care of themselves, they can also tangibly benefit from specialized, technical support. The middle level farmers, big in numbers, are mainly in **livelihood farming**. They require focused extension attention, and once in the development mainstream, they will be very much like the elite farmers. Here is a huge development potential to be tapped. But, in the case of the slow movers, a large investment of development effort may not be rewarding; but certainly they require attention to safeguard their welfare needs.

Characteristics	Elite Farmer	Middle Level Farmer	Slow Movers
Social status	<i>Relatively high</i>	<i>Medium to low</i>	<i>Very low</i>
Economic status	<i>Relatively high</i>	<i>Medium to low</i>	<i>Low</i>
Educational status	<i>Medium</i>	<i>Low</i>	<i>Very low</i>
Information seeking	<i>Seeker</i>	<i>Mainly user</i>	<i>Poor</i>
Innovative trait	<i>Innovator</i>	<i>Follower</i>	<i>Poor</i>
Management ability	<i>Good</i>	<i>Not prominent</i>	<i>Meager</i>

11 With the foregoing, it is possible to identify four sources of growth for the future. Starting with the **intensification of the present efforts** built on GR technologies, attention must be focused on **tapping the potential in dry farming**, mainstreaming and **empowering the middle level farmers** and making use of the locally suitable, cost-effective, **alternative farming practices**. In combination, these efforts will provide the development thrust we are looking for, after the Green Revolution.

Shift in Development Approach Necessary

12 At this point, an emergent feature of the agriculture sector, which is of practical significance, has to be reckoned. In the past, 'agriculture' and 'farming' meant more or less the same. But, today, '**farming**' mainly refers to the production activity on the farms, making use of the natural resources, purchased inputs and a combination of traditional and modern cultivation practices. On the other hand, the term '**agriculture**' has become a more inclusive, covering farming as well as a host of pre-production and post-production activities. These include both the "backward linkages' and the 'forward linkages'. Present day farming, which has become highly externalized, can hardly survive without many of these support elements. Thus, the agriculture sector today consists of a range of activities covering production, supplies and services, processing and marketing. It has, in the process, become a very complex sector.

13 Therefore, in this context, one has to locate as to where development in this sector actually begins. In broad terms, the indicator of development is the increased output, both in physical and economic terms. The physical output, as farm products, takes place entirely on the farms. Here, the farmer is the sole player. The contribution to farm products as economic output takes place both on the farms and elsewhere in the sector. Here, there are a wide range of players who are in addition to the farmers. But, a meaningful process of development may be regarded as beginning from the point where improvement in farm productivity takes place, with the farmer moving to be a better producer. For, there is no farming or agriculture without the farmer.

14 For many reasons, the development strategy of the GR days is no more tenable. The farm sector has become a different world since Independence. **The land-man ratio**, to begin with, has changed. The farm population has grown more than three times. The joint families have divided and subdivided. For both these reasons, the farm holdings have shrunk in size, and a large proportion of them are now small and marginal units. More over, farm lands have undergone extensive degradation over the years due to erosion, loss of surrounding vegetation, and heedless exploitation of the ground water. Thus, the farm base, for the most part, has become impoverished.

15 In the last six decades, with the expansion of communication facilities and media reach, the distance between rural and urban communities has been drastically reduced. As the literacy levels go up, along with the proportion of youth in the village communities, the **rural aspirations** have soared to unrealistic heights. Meanwhile, in the context of highly externalized farming systems of today, input costs are going up as the farm incomes keep coming down, and more and more farmers are beginning to look at farming as an un-remunerative, drudgery.

16 The high profile technologies similar to those of the GR days, which give enormous yield enhancements, have ceased to emerge from the research system. As a result, the earlier single purpose extension strategy – focused on crops and yields – does not work anymore. Because, in the case of present day technologies, as the promised benefits are only marginal, farmers are not eagerly seeking them, as in the case of GR technologies. As such, a fast moving agriculture development of the past is no more possible. The **top down approach** in extension, therefore, becomes irrelevant.

17 Also, the degree of cohesion in the farming communities seen in the olden days is now a distant history. The power structure and the communication patterns in the communities have become entirely different. As such, working through opinion leaders and contact farmers is not anymore feasible. In these communities, which have become fragmented one way or another, working with interest groups, adopting a **bottom up approach** appears to be the only possibility for the present.

18 Then, there is an interesting phenomenon that has become visible in recent days. After sixty years of democracy, and with the perceived ineffectiveness of the alliance governments to cater to the expanding range of people's needs, far sighted individuals are coming forward **to help themselves**, wherever they can, with whatever they have. SHGs, led by poor rural women are well known examples. In this regard, a consensus is slowly emerging that, wherever possible in the future, development strategies must latch on to these **peoples' initiatives**.

19 It is widely recognized that our agriculture extension system is unequal to the present day development tasks. After its glorious performance during the green revolution, the pervading complacency that arose led to a long spell of neglect of the extension system in terms of both manpower replenishment and critical financial and administrative support. Also, today, whatever strength the system is left with, it is only in the area of food crop improvement, and not in areas like production economics, diversification of farm enterprises, post-harvest technologies or market operations.

20 Hence, the future scope for development is more in the area of nurturing local initiatives, mobilizing local support, and enhancing farmer's abilities in managing farm resources, enterprises and market operations. It is not merely in transferring new technologies. As such, it is imperative that the extension system works with other agencies competent in these other spheres. As such, **a team work in development** becomes more appropriate, instead of loading the emaciated extension system with a multiplicity of new responsibilities.

21 Thus, with high profile technologies becoming a thing of the past, with the range of rural needs expanding rapidly, and with people here and there showing interest in helping themselves to the extent possible, the future development approach must not only be one of **bottom up** in nature, but also be **a multi-agency extension work**. This may involve the mainstream development agencies (for policy delivery), Local-self Government entities, (PRIs – providing local support), and the service oriented Civil Society Organizations (CSOs – as intervention agencies), along with the self-help driven Community Based Organizations (CBOs – as entry points). Such a shift in the development approach has become very much a necessity today.

Route -- Reaching the Farmer to Reach Farming

22 Everybody knows that 'farming is what the farmer does'. Many others may be doing something about farming; but, all that is not farming. A farmer conducts farming based on **what he knows, what he believes, and what he is able to do**. In the earlier days of family farming, the source of his knowledge was essentially his family and his community. But, today, when farming is highly externalized, a substantial part of his farming knowledge comes from external sources.

23 It must also be noted that today agriculture is a collective term encompassing a large range of activities. As seen earlier, **farming** refers essentially to the production activity, while **agriculture** refers to, including farming, a number of activities generally supporting the production activity, before and after. A close look also reveals that the farmer today has lost a lot of his freedom in his decision making in production options, input mobilization and market operations. Further, farming has gradually become more of an economic activity, shedding its earlier feature of a way of life, and, in the process, has become more and more firmly integrated with the larger economy.

24 Prospective extension approach must have another insight. In so far as farming is concerned, farmer is the **key player**. All others are, at best, his **enablers**. For, farmer is the **only end user** in production processes. He is the end user of the **natural farm resources** of soil, water and bio diversity. He is the end user of the **production technologies**, both traditional and modern. Also, he is the end user of the **development opportunities** offered by the economic environment. As such, he has to be the keystone, and centre of attention in every development undertaking.

25 Extension service is the system **which relates relevant external knowledge to the farmers' problems, needs and opportunities**. This is in combination with the prevailing knowledge systems. In its operation, it is a system of rural communication associated with non formal, adult education. When, the extension system, as a change agency, seeks durable changes in farming, it is quite necessary that the farmers are involved, as central players, in these educational and communication processes. As participants, they have to become aware of the options available, understanding and accepting the intended changes. They must also gain the ability to apply these changes in their own situations. Even in situations when they adopt some changes just by imitation, it is incumbent that they accept the intended changes before the adoption. As such, the development policy must recognize a **farmer as the medium of change**. There is no way to by pass the farmers in seeking durable changes in farming.

26 But, working with individual farmers in the present circumstances is out of question. The farmers are too many in number, and their needs and problems are almost unlimited. Therefore, working with **Farmers Partnership Groups (FPGs)** is seen as a desirable option. Apart from forming such groups around perceived common interests, there are some ways in which the group stability is reinforced, like adopting norms of small savings, regular meetings, record keeping and rotation of leadership roles. Along with these, periodic exercises of activity planning, performance reviews and setting revised goals will go a long way. They will keep the groups alive and active.

27 It is necessary that each FPG takes its birth in a Gram Sabha, so that it is, from the beginning, **rooted in the community**, and not seen as an exclusive 'hand maid' of an outside agency. The members of the group have to be sensitized from the outset that their participation in the group means that not only they make progress in farming, but also they serve their community systematically. For this purpose they must, as individuals and as a group, develop **patterns of interaction with other farmer groups** in the community. Events like Field visits, Field days and Sharing Meets fall into this category. FPG must thus serve as **an entry point** and serve as a Change Agent.

28 Prospective extension approach must be more sensitive to the work situation, in three ways. (1) The extension focus in the future must prominently include **dry farming**, as the **second front** in agriculture development, even as the production environment is relatively a modest one. (2) Since the farmers here are often risk-shy, because of their limited **economic resilience**, and prefer low cost technologies. (3) Lastly, in dry farming development, very often, farmers find tested **alternative farming practices**, instead of unfamiliar high profile technologies, more acceptable and affordable. It is, in fact, low key and low cost technologies that work in dry farming development. As such, the future extension approach must be more **need-based, bottom up strategy**, rather than the **technology-based, top down strategy**. In other words, it must be a more **farmer-centered** rather than a **technology-centered** strategy.

29 Thus, the development focus henceforth has to be on two major tasks – one, systematic conservation, improvement and durable utilization of the **natural resources**; and, two, systematic empowerment and institutionalization of **human resources** for sharing and sustaining the changes. In contrast, the focus so far had been exclusively on enhancing the productivity of new technologies and added inputs.

Every Farmer has to work for Two Goals

30 Rural society today displays many diverse and complex trends. Even with the unprecedented urban growth, the rural population remains large and expanding. More significantly, the priorities of the rural people are moving away from farming. Most of them would like to leave farming, if they can. But, only because they cannot, they are still in farming. In the meanwhile, the production base in farming, especially dry farming, is getting all the time smaller and degraded. This situation in rural life is aggravated since the age-old barter economy that supported both farming and family life, is displaced by the money economy. Under these circumstances, all farm families must necessarily pursue farming not only for **food security** but also for **income security**.

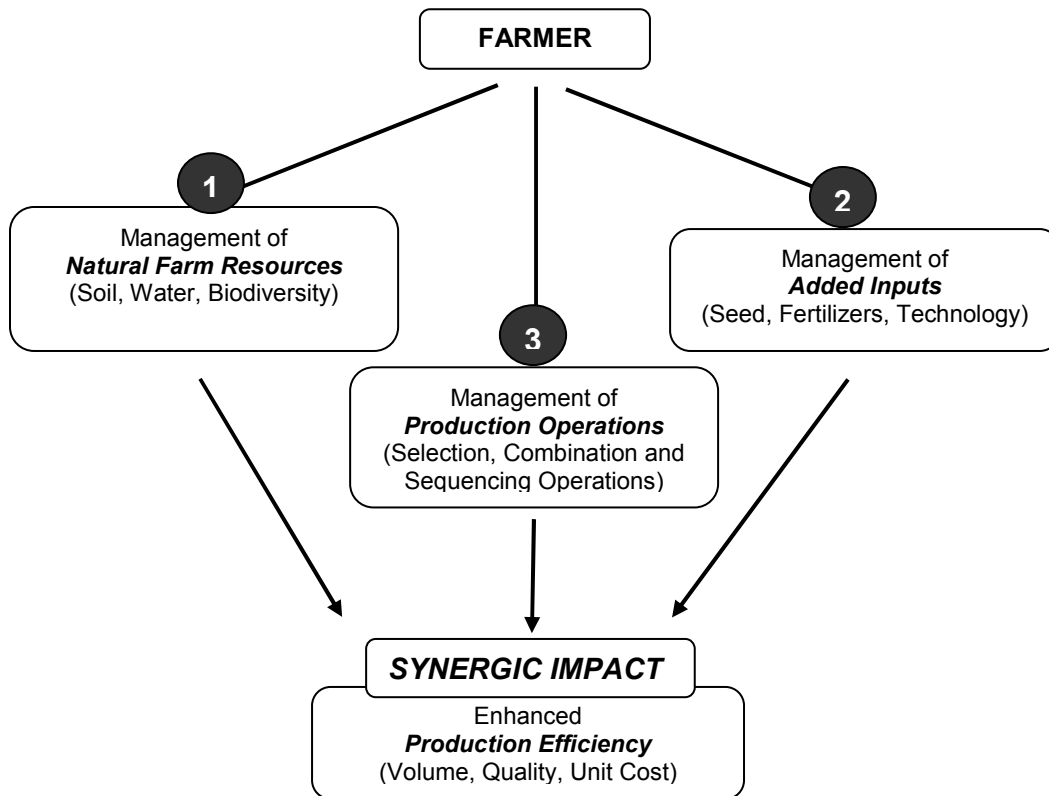
31 Thus, each farm family today has two dominant pursuits – food production and cash income. Often, both these have to come only from their farming occupation. This means that in the future both the farm production and the farm income have to be strenuously stepped up. But, how can they get more out of a shrinking and degraded farm base? This is the most serious problem in dry farming. But, in the place of no solutions, some partial solutions at least have to be found.

1. Increasing farm productivity. The inner desire of all farmers is to make the best out of the production opportunities they have. As of now, their attention is on crops and yields. Most of the present generation of farmers has lost sight of the fact that farming actually begins not with sowing but with husbanding the natural farm resources -- soil, water and biodiversity, under a given climatic situation. Adequate attention here will be rewarding.

Under **irrigated farming**, there is some scope for improvement by way of better water-use practices, drainage, cropping systems, and displacement of expensive purchased inputs. Attention needs to be given to choice of cropping systems, avoiding mono cropping, water-intensive crops and summer cropping. This must be coupled with reduced use of purchased inputs, generation of local inputs like seed and organic manures, and use of more biologicals in farming. These measures are aimed at increasing the productivity, reducing the production costs and conserving the natural resources, moving towards sustainable agriculture.

In the case of **dry farming** the story will be a little different, in terms of both the problems and relevant solutions. Primarily, the crop yields here are low, and often uncertain. The low yields or crop losses are mainly due to (1) moisture stress at the critical stages of crop growth; (2) low soil fertility depressing the yields, even when moisture is not the limitation, and (3) inappropriate cropping practices like mono cropping, which lead to pest-disease and nutrient deficiency problems. But, many of these are eminently remediable through appropriate agronomic practices.

COMPONENTS OF FARM PRODUCTIVITY



Input productivity – This was the main thrust during the green revolution where enhanced productivity of the added inputs like seed, fertilizer and agronomy was the core objective. The progress in the agriculture sector so far has been mainly in this aspect.

Resource productivity -- The reference here is to the natural farm resources including soil, water and bio diversity, in a given climatic situation. While traditional farming devoted considerable attention to this aspect, this matter has suffered widespread neglect during the green revolution. Tangible benefits are there to be derived here with proper husbanding of these natural resources. Sustainability in agriculture really originates mainly from proper conservation, development and utilization. This is essentially a matter of careful management of natural resources, along with better management of inputs and production practices.

Management productivity -- This covers both the input management and resource management, along with the management of production operations. In reality, these are the aspects of an **indivisible production enterprise**, separated here only for closer scrutiny. Good farm managers get the best out of the resources, inputs and the production technologies.

2. Increasing farm incomes. Beyond the food security, all farmers today must invariably seek to earn a money income, from on-farm and off-farm activities. This has become difficult as the holdings are getting smaller and degraded. Hence, farmers, in addition to selling some of their regular products like grains, pulses and oil seeds, must also produce some market commodities like onion, potato and vegetables. But, in their interaction with the market, directly or through the middlemen, almost always they come out as losers. It is because the market is an entirely new world for them, beyond their easy comprehension. In recent times, farmers are resorting to collective bargaining methods as a measure.

Enhancing income from farming – with a lot of externalization that has become a reality today, farming is becoming more and more a business activity. Considered as opportunity costs, or otherwise, investments are necessary in farming at present. Investments have to be recovered with decent margins. As such, farmers have to learn earning their first income directly from farming. The extension agency has to acquire the necessary competence in this area, to be able to impart this ability to farmers in an appropriate manner. This is an urgent need.

Income from subsidiary occupations – Apart from producing products for the local markets and weekly shandies, small animal rearing has been a traditional practice of small farmers, while dairy farming has also been in vogue. With a drastic reduction in the size of farm holdings, along with the break up of joint families, livestock in farm families has rapidly dwindled. As such, in the place of work animals, it seems to be more rational now to bring back one or two dairy animals or some animals as a source of additional income to farm families.

Planning production for the market -- The prices farmers obtain in the market place are really the product of the demand and supply interaction, at a given place and time. Surpluses exceeding the demand will not fetch larger incomes to farmers. Therefore, as the farmers enter the market farming mode, it becomes absolutely necessary for them to take into account the **demand behaviour** for the commodity, over a period of time. As such, production planning, with the anticipated demand pattern in mind, is a basic requirement in market farming. It will be more realistic as a group activity than as an individual effort.

Marketing as a group activity – Guided by common sense, here and there, farmers have come together to pool their small marketable surpluses in order to gain some bargaining advantage. This is often seen as a successful experience. As long as some openness and honesty within the group is ensured in the transactions, this measure works very well. If, on the other hand, some smart members in the group become greedy, the measure is likely to fail. Farmers too have realized this. Of late, some CSOs, have begun making efforts to guide the farmers they are working with, to move in the direction of group action in marketing.

On-farm value addition -- Preparing farm products for the market is a very important step, more so in the case of perishables like vegetables. Cleaning, grading and packaging are relevant here. Post-harvest measures for many commodities will be necessary. Groups of farmers, especially farm women, can be trained in this important phase of work.

Other income generation activities – In farming, support activities like production of seed, nursery plants, vermi-composting and azolla will serve to reduce the input costs or earn income through sale. Similarly, production of additional bio mass for fodder and manure will also be in this category. Again, some off-farm supplementary income activities are possible. Rearing small animals, poultry, dairy animals, bee-keeping and the like are activities in this category.

32 All farm families, in order to survive in farming, will have to keep moving beyond the present. Farming, which was at one time basically 'a way of life', is inexorably changing into an economic activity. Faced with the need for keeping pace with the world around, farmers will have to keep making adjustments, aiming at both production improvement and income enhancement. Also, there are opportunities, technologies and incentives, provided by policy, however inadequately, to facilitate this process of change.

Better Farmer is the Secret of Better Farming

33 Emanating from all this deliberation is a simple message. The best of the natural resources, the best of the production technologies and the best of economic incentives will not take the farming enterprise very far, unless the farmer himself becomes a better manager of farming. Present day farming is a highly externalized economic activity. It is high time that the policy makers and programme administrators begin to distinguish between the **necessary conditions** (prerequisites for development) and the **sufficient conditions** (farmers' abilities to avail the opportunities) in development. These two sets of factors, in fact, arise from **macro perceptions** and **micro perceptions** of the agriculture sector, and need to be properly linked in order to generate an appropriate development perspective. It must also be seen that **the farmer is the only key player** in farming, and all others are **his enablers**. As such, enabling the farmer to become a **better manager of farming** must now be the central goal in agriculture development.

34 It is common knowledge that in every farming community, there are a few farmers who are far ahead of others in their ability to foresee and avail the economic opportunities, to be venturesome taking reasonable risks, and often gain from the chances they take. They are, in fact, the trend setters and wealth makers of the society. They are in a sense 'ready made' natural managers. They can, most often, find their way to success on their own. But, they too will vastly benefit, if some systematic and up-to-date technical support is provided. This needs attention in the development efforts.

35 But, the real **source of concern is the middle level farmers** in agriculture development, who make up a large proportion of the farming community. They are mostly resource poor and stuck in dry farming. Placed as they are, they are risk shy and happen to be mainly 'localites'. It is this segment of farmers, who also have the potential ability to make progress, and, for that reason, need some 'hand holding'. Hence, considerable investment of effort is required here, as human resource development. From this viewpoint, it may be seen that the future development in agriculture will not be so much only **technology driven** but very much **farmer driven**.

36 It is also being widely accepted that the **future potential for growth** in agriculture is in dry farming, as it encompasses a vast area and a huge population. But, here the high profile, self-selling GR technologies will not work, because the production situation is not an assured one as in case of irrigated farming. Also, the resource poor farmers cannot afford the expensive technologies. As such, the **'top down'** extension approach will be quite unsuitable in dry farming. In its place, what will be appropriate is the need-based **"bottom up"** approach, built around people's problems and initiatives.

37 The development focus, therefore, must be on **building farmers' ability** to be as better managers of natural farm resources, of production technologies and of the cropping practices, avoiding mono cropping and other inefficient practices. In addition, the effort is to initiate and stabilize **farmer-to-farmer** spread of new ideas and practices. This approach will not only hasten the scaling up process, but will also render the development process more **cost-effective**. But, how to put this strategy into practice?

Entire Community as the Client: Since the green revolution days are now over, and with it the days of high profile technologies, there is no further room to put the technology-led extension strategy to work. The farmers who need the extension service more at present are the resource poor, small and marginal farmers, mostly in dry farming. Also, they are, in proportion, almost the entire community. Reaching them individually is not practical. Since the extension persons cannot attract farmers with impressive technologies, as they did in the past, most often they have to provide the 'farm-door service', by going to the farmers. Here, the effort has to be to create, at some stage, a system of **'farmer-to-farmer sharing of knowledge'**. Having the entire farming community as the final target group, a beginning, as an entry point, has to be on a modest scale.

Farmers Partnership Group (FPG), the Entry Point: Contact with a farming community begins with the formation of a Farmers Partnership Group, in the Gram Sabha, after initial interactions with the community, using the PRA methods. The group will have forward-looking farmers, normally twenty men and women that can see the benefit of coming together for cooperative action on selected aspects. Setting up the Group in the Gram Sabha is to ensure that the Group has its roots in the community, and that it recognizes its obligations towards the community, while the community develops a sense of ownership regarding the Group. Such a Group is modeled after the SHGs which are by now well known in the rural areas. Small savings, regular meetings, record-keeping and rotation of leadership are incorporated into the group work from the very beginning. Employing the non formal adult education methods, the Group will be sensitized about the existing constraints in farming as well as the possible remedies. At a proper stage, it will be put through the PTD exercises, wherein a set of alternative farming practices – enriching the sound traditional practices with selected new practices – will be tried by them to choose the acceptable and affordable, **alternative farming practices**.

Establishing the Eco farming Base: The extension agency will work with the FPGs on a planned basis to enable them to identify the existing constraints in dry farming and find ways to overcome them either marginally or substantially. They will soon come to visualize that some selected **sustainable agriculture (SA)** practices, in proper combination with local practices, might offer a solution to the farming constraints they are now facing. These combinations will then become the subject for the **Participatory Technology Development (PTD)** exercises. In two **clusters of villages**, in every area of operation, each cluster having a few contiguous villages, the PTD exercises will be conducted. Thus, in a compact area, there will be a few FPGs conducting PTD trials with a combination of farming practices. Each member of the FPG, will work with one acre of land split into two parts. He will practice the **Farmers Methods** in one part, and a set of **Alternative Farming Practices**, in the other. Thus, each Group will have the first-hand experience of the dry farming improvements possible in their situation, in about twenty cases. These PTD plots in the clusters, progressively worked with, for three or five years, will form the **Eco farming Base** of the area.

Priming the area: Through out, the members of the FPGs will have formal and informal sharing of impressions, discussions and conclusions, which will be reviewed at the end of the season in the Group meetings. With due attention to these plots, over three or more crop seasons, each farmer would be able to build up the productivity of the unit, thereby gaining a degree of sustainability. Thus, an eco farming base established, not with one farmer but a group, will be a critical preliminary step in promoting SA systems. It serves several purposes, starting from building the confidence of the Group, gaining locally relevant insights, and serving as a training ground for the extension agencies. A successful base will very soon become a talking point not only in the locality but in the entire neighbourhood. This will serve, in effect, as a **bunch demonstration**. With this, it will be easy for the participating farmers to speak to their fellow farmers with confidence and conviction.

Scaling up the SA practices: Alternative farming practices, particularly in dry farming, have to be taken to many farmers, covering as much area as possible, to be effective. Therefore, a scaling up process is a part of the strategy here. There are three simple ways in which this goal could be pursued. One, the FPGs, as an association, proving their presence and building their visibility, can avail the opportunity and fulfill the obligation to share the SA concepts, practices and systems with their fellow farmers, in the area. This may be termed as priming the area. Two, networks of FFS (Farmer Field School) trained Lead Farmers, networks of participating NGOs may be enabled to handle the SA scaling up in the region, say, a taluk.

SA Outreach activities: Usually, within a season or so, the word gets around about the eco farming ventures initiated in selected clusters of villages. Enquiries by interested farmers and agencies begin to pouring in. There will be requests for visits to the round about places to guide farmers. Three, depending upon the manpower that could be mobilized for the purpose, such outreach activities could be undertaken in a district. Since these are, most of the time, acceptable and affordable practices, there will be a wide range of interest on the part of the dry land farmers in the entire region.

Multi-agency Extension Team for Spread Activities: Of late, there is a gradual realization that the **extension system** to address the wide range of technical services of a growing farm population, there must be a **multi-agency team**. The **structural arrangement** for this may consist of the *public extension service* (for the delivery of policy benefits), local *PRI body* (for providing ground support), a *chosen CSO* (as a proven intervention agency) and the *selected FPG* (as the entry point to the community). The **operational strategy** consists of the conduct of PRA events, PTD events and FFS events, carefully incorporated into programme implementation plan. Working with these operations, an **Association of FPGs**, an **Alliance of FFS Lead farmers**, and a **Network of NGOs** may be formed who would provide the leadership for the farmer-to-farmer sharing strategies. In the long run, it is such social capital building activity that provides the durability to the development initiatives in the farming communities. In fact, the main function of the public extension agency will then be essentially servicing and supporting the **peoples initiatives** in the form of CSOs and CBOs.

38 The foregoing fabric of thoughts is indicative as to how, in the absence of the technology-driven agriculture development, the attention has to be devoted basically to the farmer-centered approaches, grounded mostly in people's initiatives. It will ensure, on the one hand, that **the felt needs of the farmers** are addressed, and on the other, the burden of **knowledge based development** is shared, largely, by the beneficiaries themselves, in this case the farmers. Thus, it will become truly a farmer-driven development process.

**BUDDHA MAY SHOW THE WAY,
BUT EVERY MAN HAS TO WALK HIS PATH.
LET US ENABLE THE FARMER TO PERFORM BETTER**