



Chapter-VIII

Issues, Suggestions and Recommendations



Training of Farmers' Interest Group members



Group Mobilisation meeting

Chapter - VIII

ISSUES, SUGGESTIONS AND RECOMMENDATIONS

Based on the findings & conclusions of the study and keeping in view the scope and significance of ATMA Programme aimed at reforming the extension mechanism, the following issues are brought out together with appropriate suggestions and recommendations so as to facilitate a policy review of the scheme at the appropriate levels:

1. **Bottom up Planning below the District level**

An important element in the ATMA model is the involvement of farmers' organizations in decentralized decision-making, planning, priority-setting, monitoring and evaluation. The field survey has, however, revealed that the decentralization of planning process down to block level is slowly & gradually picking up but it is yet to percolate down to village level. The concept of participatory approach in the preparation and implementation of the developmental plans at the village level has not yet taken firm roots though there appears to be perceptible improvement from the pre-ATMA position. Though farmers have due representation in the institutional mechanism created under ATMA such as Governing Board and FAC, there is need for greater involvement of farmers in actual planning and implementation of extension programmes and developmental plans at the village level. In order to make the planning process bottom-up in complete sense especially below the district level, the following measures may be initiated under ATMA scheme:

- i) The members of Block Technology Team (BTT) comprising of officials from line departments at the block level namely, agriculture, horticulture, animal husbandry, fishery and others must obtain the feedback from certain specified number of farmers, say 30, about their extension priorities before finalization of BAP through a brief structured questionnaire (1-2 pages). This exercise should be an annual feature where only the relevant information / data like existing cropping pattern, cropping plan of the farmers, infrastructural requirements and constraints may be obtained. The data may be fed in computer to bring out extension and other requirements of farmers on an objective criterion. Its record including the name of the official and date of interview must be available for monitoring at the FIAC level.
- ii) As revealed from the holding size of the sample farmers, 78 per cent of them are below 2 ha. and it is certainly not feasible for the extension mechanism to access individually all small farmers. The Farmers' Advisory Committee (FAC), therefore, needs to play a more proactive role through interaction with Farmers' Interest Groups (FIGs) and Farmers' Organisations (FOs) in deciding their extension priorities during finalization of Annual BAP. In order to actualize this,

it is imminent to promote Commodity based Farmers' Interest Groups (FIGs/CIGs) so as to fill the gap in extension services at the village level and to make the technology generation/dissemination truly farmer driven and farmer accountable. The focus, however, needs to shift from mere group formation with a target oriented approach, as the study has revealed, to making them an effective channel.

- iii) The Farmer's Advisory Committee in each block should invariably have representation from FIGs / FOs on rotation basis unlike the present system. An inventory of all the FIGs/FOs formed at the block / village level should be maintained at the FIAC office in each block. The FAC so formed will thus be more accountable to its members thereby ensuring a better bottom-up planning for agriculture development with extension support.
- iv) In order to strengthen extension at the block / village level, it is imperative that the FIACs in each block have their own office well equipped with necessary infrastructural facilities viz. computer / Internet facility, audio-visual aids, library etc. so as to demonstrate and facilitate information for the farming community thereby ensuring effective monitoring, coordination and execution of field activities. FIACs in all the blocks should provide farm related information and advisory services such as farm inputs, market access, competitive price of produce, weather information etc. Further, the FIACs within the district may be networked electronically to enable information sharing.
- v) FAC being a vital arm in the bottom-up extension strategy under the ATMA model should meet preferably on a monthly basis to discuss and plan the extension priorities as also to monitor the execution of block level programmes as determined in the BAP. The study has, however, revealed that the farmer representatives in FAC at the block level are spread across villages far and wide and there was no attraction to travel all the way for a meeting leaving their vocation, in the absence of any allowance or incentive. It is, therefore, suggested that the members of FAC may be allowed some fixed allowance or incentive for attending the meetings of FAC to encourage participation and involvement of all members in bottom-up planning and implementation processes.
- vi) The Convener of the Block Technology Team who is invariably the Agriculture Officer in the Block both in UP and Haryana is under tremendous pressure due to their involvement in multiple schemes/programmes of the centre and the State Government. In the process, the extension activities at the block level seem to be not getting the desired focus and attention. In order to actuate the extension activities in the block level and to make it farmer driven and accountable as envisaged under ATMA, the mechanism at the block level i.e. FIAC should have its own dedicated staff for effectively undertaking village level

extension activities and to bring about synergy among all the line departments. For this purpose, the ATMAs should be allowed to recruit technical specialists and field functionaries (Krishi Sainik, Krishi Mitra, Krishi Sangathan or such other nomenclature) on contractual basis for providing technical support to progressive farmers. The technical experts would enhance the capacity of progressive farmers for providing extension support with a group approach i.e. group of farmers producing the same commodity.

2. Promotion of Farmers' Interest Groups and Farmers' Organisations

An important agenda of extension services is the mobilization of the community into Farmers' Interest Groups mainly on commodity lines. Though efforts are being made to mobilize and promote Farmers' Interest Groups [FIGs/CIGs], the progress of FIGs has, however been poor and the concept has not yet taken roots in the FIGs mobilized so far, in the form in which it is envisaged. In order to make extension more demand-driven with real focus on learning and empowerment, CIGs need to be organized to function in a well-structured manner instead of the hap-hazard way in which they exist today. The following steps may be taken to create stake of the farmers as well as the ATMA in FIGs mobilized on commodity lines:

- a) CIGs should be promoted / mobilized for atleast one major commodity.
- b) Each CIG should cover an area of approx. 500 ha.
- c) The groups should cater to the requirement of farmer cultivator for the entire area such as procurement and supply of seeds, farm implements, fertilizers, providing market linkages, post-harvest management, value addition, processing and other extension needs.
- d) All cultivating farmers including tenant farmers should be made eligible to become members of the CIG.
- e) The optimum number of farmers in each group could be in the range of 20-25.
- f) Membership fees may be fixed by the group as decided mutually so as to create stake of farmers. The funds could be used for their agricultural operations (including allied sector) namely, bulk purchase of seeds / chemicals & fertilizers, creating a farm implement bank, construction of storage godowns, establishment of processing units etc.
- g) Separate groups (FIGs/CIGs) could be mobilized for farmers below 2 ha. ATMA can create its stake in these groups by contributing a matching grant of say, 50% of saving with a specified upper limit on a monthly basis for a period of around 12 months to provide handholding. Such groups will have stake of both the farmers and ATMA and can be a good platform for undertaking training, demonstration, exposure visit, etc.
- h) The ATMAs in each district should engage good and reputed NGOs/ KVKs to mobilize and promote CIGs. Line departments and farmers' organizations such as Kisan Club should be actively involved in mobilization of CIGs.

- i) To motivate farmers for forming FIGs, the membership in commodity oriented groups can be the basis for provision of any other type of assistance under other Government schemes as well like supply of seeds, farm implements, fertilizers, etc.
- j) Each FIG/CIG should meet atleast once in a month to discuss the activities of the group and to decide its future course of action.
- k) The forum of FIAC at the block level and the ATMA Governing Board at the district level should monitor the functioning of all CIGs on a periodic basis.
- l) The group shall elect one member as the leader.
- m) CIGs at the village level could be federated at the block/mandal level and subsequently at the district level.
- n) CIGs shall maintain proper register, records such as commodity register/ proceedings register, saving register ledger and cash book.
- o) Capacity building / training plan should be devised to cover all FIG members in due course.

3. Awareness generation about ATMA Scheme among farmers and extension officials

Under the existing arrangement, ATMAs in the districts do not have any dedicated or exclusive staff to undertake various extension activities though one or two staff namely, Technical Assistant/SMS had been entrusted with the task of ATMA. The Project Director of ATMA in his capacity as the Head of the Agriculture Department in the district is already overburdened with multifarious activities under multiple schemes of the Centre/State and hence the desired focus and attention to extension activities in the district is certainly lacking. The existing extension mechanism is thus suffering from several ills such as excessive workload on agriculture department staff both at district / block level, inadequacy of manpower in line departments, etc. Though the state level training institution i.e. SAMETI had organized several programmes for diverse skill up-gradation of officials of line departments, the study has clearly revealed that many of the field functionaries and FAC members have still not received any training. The size of this target group being very large and varied in knowledge level, no single institute/agency could handle the training requirement. In order to improve awareness about ATMA, the following measures are suggested:

- i) Involvement of KVKs, extension departments of SAUs and local resource persons to supplement the efforts of SAMETI in training the extension officials.
- ii) Involving block/village level officials and representatives of Gram Panchayats and Zila Parishad in formation of Farmer's Interest Groups in a campaign mode.

- iii) Involvement of Panchayati Raj Institutions for creating awareness among farmers, selection of beneficiaries for various extension programmes as well as actual conduct of training programmes, on-field demonstrations, etc.
- iv) Giving more flexibility to village/ block officials to meet out the travel expenses for the additional work under ATMA.
- v) Dovetailing other Government programmes for agriculture & allied sectors implemented by line departments with that of ATMA activities at the district / block level and creating the desired linkages.
- vi) Launching a wide publicity campaign through audio-visual and other aids at the district, block level and village level for creating awareness about ATMA with active participation and involvement of all the line departments, KVKs, SAUs, Farmers' Organisations/FIGs, Corporates and NGOs.
- vii) Preparing a time bound and well-structured HRD plan for each of the ATMA district to provide capacity building/training to all the field functionaries and stake holders.

The above steps can create a sense of ownership of the programme among the block/village level officials and intended target group i.e., the farmers. Further, the field survey has also revealed that the farmers would be willing to pay for farm advisory and other essential services if it is of their relevance and the quality of services is also of high standard and reliable.

4. Involvement of KVKs / SAUs for Research-Extension-Farmer (REF) Linkage

Krishi Vigyan Kendra's (KVKs) have been set up to demonstrate the application of science and technology input on the farmers' fields with the help of a multidisciplinary team of agricultural scientists. The ATMA model envisages a proactive role for KVKs in operationalising the scheme in the district. The research priorities of KVK are expected to be fully aligned with and made sensitive to SREPs at the District level. The field survey has, however, revealed that the ATMA structure at the district level has failed to utilize the institution of KVK to its full potential. The study has also revealed that the Kisan Goshties, Farm Schools and Farmer-Scientist interface have been found useful by a large majority of farmers to the extent of 80 to 90 per cent. Even participation of farmers was also about 90 per cent in these farm knowledge dissemination activities. However, the frequency of farmer-scientist interface was too low in almost all the sampled districts and the linkage between research & extension as also between research and farmers was virtually lacking. Therefore, the following measures are suggested to effectively use the knowledge base of KVKs and SAUs in implementation of ATMA programme, especially the Research-Extension-Farmer Linkages:

- i) KVKs should be provided greater autonomy and flexibility for drawing out extension programmes in the district keeping in view the local needs and

priorities. The study has revealed that there was much reluctance among the scientists in KVKs to be monitored by the ATMA Project Director i.e. Deputy Director Agriculture and this was attributed as one of the factors for low level of involvement of KVKs under ATMA. In order to ensure proper integration & synergy between the ATMA body at the district level and KVKs and to avoid duplicacy of efforts, the ATMA Governing Board, in consultation with KVK, should approve extension activities to be undertaken by KVKs along with budgetary allocation, well before preparation of their annual programme so as to enable KVKs to dovetail ATMA programme with that of their regular activities. Agricultural University owned KVKs should also have the authority to receive funds from any agency including State Government directly on their account instead of the same being routed through the Comptroller of the respective Universities, which appears to be cumbersome and time consuming.

- ii) The time lag between technology generation and dissemination needs to be minimized by devising suitable means & mechanisms for continuous flow of knowledge, techniques and technologies from research institutes / universities to KVKs and ultimately to farmers'. KVKs should, therefore, be given complete responsibility for managing and conducting Research-Extension-Farmer (REF) Linkage activities under ATMA viz. organizing farmer-scientist meets, arranging kisan goshties and field days, monitoring the farm schools operated by progressive farmers and supporting researchable issues emanated from SREP. KVKs with expertise of all disciplines in their command and being under the control of SAUs are expected to be more accountable responsible in effective execution of extension programmes under ATMA.
- iii) KVKs may well be utilized for training needs of extension functionaries, members of the GB/MC/FAC/BTT, progressive farmers and leaders of CIGs in addition to their other extension activities to create awareness on various improved farm technologies particularly, marketing, post harvest management, value addition, mechanizations, etc.
- iv) ATMAs at the district level should utilize the services of KVKs in selection of site as well as varieties to be demonstrated through FLDs. Similarly, on completion of FLDs, its performance should be assessed jointly by KVK and ATMA. KVKs may carry out on farm participatory research trials to generate location specific recommendation suitable to various farming situations of the district.
- v) The existing extension mechanism within the districts is suffering from several ills such as excessive workload on agriculture department staff at block level, inadequacy of manpower in line departments, non-technical nature of responsibilities for field level staff, limitations of the field level extension functionaries to address ground level problems, low level of involvement of Farmers' Organizations/FIGs, etc. There is need to strengthen and upgrade the FIACs for effective dissemination of technologies among farmers. One of the options that could be explored is to handover the operationalisation of

FIACs at the block level to KVKs on an experimental basis in a few districts to explore replication of the model at the national level.

- vi) KVKs could be allocated funds under ATMA for setting up a demonstration units in area specific crop / allied areas like diary, post harvest technology, farm machinery, food & nutritional aspects etc. besides small processing unit in either their centre or state run research centres to serve as a model demonstration unit for the benefit of farming community in the district so as to encourage value addition and minimize post harvest losses.
- vii) KVKs should be invariably involved by BTTs in preparation of Block Action Plan. Further, SREP exercise was initiated in all the sample districts during 2005-06 immediately after launch of the scheme and the document was commissioned mostly around February-May 2006. It is almost four years since then and there has been virtually no review and updation of this vital document. It is, therefore, felt that the SREP should be invariably reviewed and updated after every three-year period to keep pace with the changes & times. The review and updation could be facilitated by KVK with the support of SAU and other concerned agencies.
- viii) The needs of FIACs are diverse and the issues referred to by farmers need immediate redressal. KVKs and Zonal/Regional Research Stations of Agricultural Universities will have to be more responsive to farmer's needs and should play a proactive role by providing timely scientific advice and technical inputs so that the technological dissemination and adoption becomes demand driven. KVKs/ZRSs should work as a continuous resource organization for FIACs and prepare a database of progressive farmers for access by any FIAC, extension worker or farmer to enable exchange and sharing of technological innovations.

The above measures are likely to lead to better linkages between ATMA and KVK at the district level and SAU and SAMETI at the State level thereby meeting the multifarious demands of the farming community.

5. Convergence of Extension Activities

One of the important objectives of the new scheme is to create an integrated or single window extension system. The SREP is a mechanism for ensuring convergence of all activities of extension, the resources for which are being provided under different schemes of Centre / State Governments. However, in actual practice, convergence of resources and schemes at the village level has not yet started in its true sense, as the planning and sources of funds of each department are different. Activities like trainings, demonstrations, kisan melas, goshties etc. are presently being conducted by the line departments under various departmental programmes in addition to similar programmes being run under ATMA, resulting in duplication of efforts. Many instances were found where same farmers were being benefited under different activities of various departments both under ATMA as well as other

government programmes due to lack synergy and integration. Therefore, a real convergence could be possible if the following suggestions are considered -

- i) The funds provided under different schemes of the centre and State Governments should be directly transferred to ATMA for implementation at the block / village level with a coordinated approach of all the line departments. Alternatively, the State Nodal Office / SAMETI may communicate the activity-wise available financial assistance to the concerned State level departments / SAUs before the finalization of their budgets to dovetail them with their programmes. The implementation of such plans at the district level shall, however, be monitored by the ATMA Governing Board / Management Committee at the district level and FIAC at the block level. The second option could be considered initially until ATMA is augmented with adequate manpower for implementation of programmes. Moreover, in such an arrangement, the programmes will be regularly monitored by the respective departments which will be required to send the monthly progress report to the ATMA too.
- ii) The ATMA Governing Body at the district level under the chairmanship of the Deputy Commissioner may review the progress of activities of all the line departments on a quarterly basis. If need be, the Governing Body may also integrate some of the budgeted programmes of different departments for synergy on sharing basis.
- iii) The extension functionaries of all the line departments need to be properly sensitized by ATMA about the advantages of synergy and the approach that should be adopted for creating the desired linkages and integration of all the government schemes for agriculture & allied sectors with the activities of line departments.
- iv) Once a dedicated Project Director for looking after ATMA programme is appointed at the district level, the personnel posted in line departments viz. agriculture, horticulture, animal husbandry, fisheries etc. must work under his overall supervision and control. The respective state level line departments should, however, have the ultimate administrative control over such staff.

6. Synergy among line department functionaries

The study team observed that synergy among the line departments was absolutely lacking in almost all the sampled districts. Since line departmental heads are positioned in the district headquarters, the responsibility of the entire work under ATMA programme right from the preparation of the Block Action Plan to its ultimate execution has devolved on the Block Agriculture Officer, who is extremely overburdened. Line departments are implementing the activities at the district level but they still seem to have a feeling that this is an additional burden imposed on them. There is lack of ownership even among officials and also among many farmers. There is a great shortage of field functionaries with top-heavy agricultural administration. Field functionaries, especially at the Block level and below are quite

inadequate for technology dissemination. Therefore, as suggested elsewhere, the implementing departments may be allowed to seek the assistance of volunteers / ex-employees with nominal monetary incentive. IDWG at the State level should advise HODs of line departments to instruct their staff at district and block levels to extend their fullest cooperation to the Project Director of ATMA as also the Convener of BTT in successful implementation of extension activities with synergetic efforts.

7. Procedure for Flow of funds at District level

Under the ATMA model, funds are allocated / released by Government of India to State Governments based on their Extension Work Plans (SEWP), which is a consolidated activity-wise plan incorporating all the District Agriculture Action Plans (DAAPs), through the state level autonomous Institution. The resources are shared between centre and the state in the ratio of 90:10. The 10 per cent State share consists of cash contribution of the State, beneficiary contribution or the contribution of other non-governmental organizations.

Based on the total fund allocation by Gol for each year, the State Nodal Agency makes need-based allocation to different districts keeping in view the activity-wise DAAPs submitted by them. The ATMA Governing Board has the operational flexibility in use of project funding. The Governing Board makes allocation of funds to line departments for district level activities particularly, demonstrations and to block level FIACs and other agencies such as KVK, NGOs etc. as per the budgeted cost of the approved field level activity plan and extension programmes included in the framework of DAAP. The Management Committee releases project funds to each of the FIACs comprising of BTT and FAC at the Block level as well as to the line departments and other agencies, from time to time, keeping in view the budgeted sanction and availability of funds. Many instances were found where funds were released to line departments / FIACs well after the commencement of the sowing season thus hampering the implementation of planned extension activities. This has led to implementation of district level plans mostly with a target-oriented management approach instead of the result oriented approach. The FIACs are maintaining accounts in a nationalized bank which is operated upon jointly by the Convener of BTT and the Chairman of FAC. A monthly report is also sent by the FIAC to the ATMA MC at the district level. The study has revealed that there was inordinate delay in allocation and release of funds in all the sampled districts which have adversely impacted the extension activities at the district and block levels. In order to streamline the procedure in this regard, the following measures are suggested:

- i) The timeliness in release of funds to implementing agencies well before the commencement of sowing season being the essence, the disbursement of funds by Gol to States in two instalments may be scheduled in such a manner that the first instalment is invariably received by the States at the commencement of the financial year itself i.e. by end April so as to enable the State Governments to release funds onward to ATMAs at the district level by

the 10th of May. The second instalment to States may be disbursed by 10th October subject to furnishing Utilisation Certificates and release of corresponding State's share against funds released by Gol earlier. This would ensure smooth flow of funds to ATMA districts for execution of planned extension activities both at the district level and block level through FIACs.

- ii) The accounts maintained by FIACs should be audited by Chartered Accountants appointed by the ATMA Governing Board at the district headquarters. A system of internal audit for scrutinizing all the transactions at the district level and FIACs must also be introduced.
- iii) The activity-wise extension plans indicated in the DAAP should not be altered by the State Nodal Agency at the time of allocation / release of funds to ATMAs in the districts else the very crux of ATMA model i.e. bottom-up participatory planning would become meaningless.
- iv) A time frame for release of funds received at state level from Gol to ATMAs in the districts and from ATMAs to line departments and block level bodies needs to be clearly specified so as to ensure proper monitoring as also to avoid the procedural delays.

8. Role of Agriclincs and Agribusiness centers

The centrally sponsored scheme of Agriclincs and Agribusiness Centres (ACABC) aims at providing extension and other support to farmers by agriculture graduates in self-employment mode. In the sample districts of Uttar Pradesh, 53 agricultural graduates through the facilitation of MANAGE under the ACABC scheme have been trained. Of them, the maximum 10 from Lucknow closely followed by Bareilly (9), Maharajganj (8) and Allahabad (8). At the State level, 3351 agricultural graduates in UP have received training under the scheme of which 1569 i.e. 47% have actually established agri-ventures. In Haryana, the situation is worse in as much as, of the 224 agricultural graduates, only 64 (i.e. 29%) have actually started their own venture. The agripreneurs and farmers who were interviewed on the benefits derived from the service revealed that the extension service provided by the agripreneurs is having the desired impact on the farmers both in terms of the increased productivity and income. The agripreneurs largely felt that the collateral security sought by banks for obtaining loans discourages them from taking up the venture since most of them are unemployed agri graduates. Lack of finance, lack of involvement in government programmes at district level, non-marketability of their project concept and inadequate training are attributed by young agripreneurs as reasons for not starting the ventures in many cases. The study has noted that agripreneurs were not being involved much in extension activities under ATMA at the district/block level. It reflects that the State Agencies have not taken any interest either in promoting the scheme or taking advantage of agri-clinics to support extension network. The study team also observed that the involvement of input dealers in extension activities is virtually non-existent in any of the sample districts. It is yet to take shape as envisaged under the scheme in both the States of U.P. and Haryana. Of late, a number of companies

namely e-Choupal and e-Sagar (ITC), TATA Kisan Kendra (Tata Chemicals), Haryali Kisan Bazaars (DCM Shriram), Kisan Sewa Kendra of IOC, Aadhar of Godrej have set up multi-purpose service centres, each catering to about 40-50 villages. These corporates are keeping science educated (upto 12th or more) and getting them trained to provide extension service to the farmers with a view to attract more farmers to buy inputs from them. The study team observed that the farmers served by corporates were quite satisfied with their services particularly because they serve as a one stop shop providing farm inputs, implements, soil testing facilities, storage godowns as well as farm advisory services. It seems that the extension imbedded with a business objective may be a sustainable approach for agricultural extension too.

In order to properly utilize agripreneurs for extension activities, the following measures are suggested:

- i) Banks should be involved in training & capacity building of agricultural graduates intending to set up agri-ventures.
- ii) ATMAs at the district level must make an inventory of agricultural graduates in the district and motivate them to establish agri-ventures at district/block level through captive clientele and by providing necessary hand-holding through SAUs, KVKs and Banks.
- iii) The allocation of 10% funds for voluntary sector involvement in extension activities could be channelised by providing assistance to progressive and enthusiastic agripreneurs interested in setting up agri-ventures so as to utilize their services extensively in extension activities.
- iv) Interested agripreneurs who are trained by MANAGE under ACABC scheme can be appointed by ATMA Governing Board or FIACs at the Block level as Volunteer Specialists to support the farmers and farmer facilitators in conducting programmes at the farm school in a structured manner. The volunteer specialists may be from the nearest possible place and could be paid a fixed monthly honorarium depending on the number of working days involved. The Nodal Institutes under MANAGE who are running ACABC scheme in the State could also be approached to provide the services of such agripreneurs under a tie-up arrangement for coordinating all the farm schools in the district. The selected Volunteer Specialists can be utilized for multifarious extension activities under ATMA at the district/block/village level.

9. Farm Schools under ATMA

ATMA envisaged that Farm Schools will be based on the principles of “farmer to farmer learning” in the field situation of the achiever farmers. Such Farm Schools will operationalize Front Line Demonstrations (FLD) in one or more crops and/or allied sector activities with a focus on Integrated Crop Management including field

preparation, seed treatment, IPM, INM, etc. The key features of these schools are given in Box-1.

The study found that though ATMA in the sample districts have made efforts to promote Farm Schools, the concept is yet to take a real shape since most of the progressive / outstanding farmers who had set up such schools in their farm fields with great enthusiasm during the first year were not inclined to continue the school in the following year reportedly on the ground that the financial assistance under the scheme was available only for the first year of activity and not thereafter. Thus, the assistance under ATMA was being made available to a fresh set of farmers in the next year. Another major drawback noticed during field survey was that the farm schools set up under ATMA were not well-structured in terms of organization, content, pedagogy, frequency of learning sessions, seasonality, etc. and were functioning in an adhoc manner without a continuous control or tracking mechanism. The study team had visited a few Farm Schools set up under other central sector programmes such as Technology Mission on Cotton to get an insight into their mode of operation and observed some good features therein. The concept of Farmers' Field School recently operationalised under National Food Security Mission was also studied.

Box 1 : Key features of Farm Schools under ATMA

- These would be set up in the field of outstanding farmers and awardees of nationally recognized awards for farmers. These could also be set up in a Government/ Non-Government Institution.
- "Teachers" in the Farm Schools could be progressive farmers, extension functionaries or expert belonging to Government or Non-Government Sector.
- One of the main activities of Farm Schools would be to operationalize Front Line Demonstrations in one or more crops and/or allied sector activities. These demonstrations would focus on Integrated Crop Management including field preparation, seed treatment, IPM, INM, etc.
- Farm Schools would provide season long technical backing/ training to target farmers.
- The "students" of Farm Schools would be leaders of Commodity Interest Groups (CIGs) formed in different villages and other farmers.
- "Students" would visit Farm Schools as per specified schedule or as may be necessary. "Teachers" may also visit students as per need.
- Knowledge and skills of "teachers" would be upgraded on a continuous basis through training at district/ state/ national level institutions and exposure visits, etc.
- In addition to technical support through Farm Schools, knowledge and skill of "students" may also be upgraded through training at district/ state level and exposure visits, etc.
- "Students" would have the responsibility of providing extension support to other farmers in the respective village or neighboring village

Farm School is an important farmer to farmer extension tool under ATMA model for dissemination of new learnings and technologies in a participatory mode. The following suggestions could be considered for restructuring the farm schools under ATMA:

- i) The farm school under agriculture sector should be structured for the whole crop season in the field i.e. right from the pre-sowing stage upto post-harvesting. The total duration of the training sessions will be need-based and would vary according to the sectoral activity in the farm school and the training module.
- ii) Atleast one farm school under agriculture or allied sector activity should be set up in each village.
- iii) Training should be flexible and non-lecture based with more emphasis on observation, analysis and discussions.
- iv) Selection of farmers should be made in consultation with Farmers' Advisory Committee (FAC) and Farmers' Organisations at the block level.
- v) Participants in each programme may be in the range of 25-30.
- vi) An expert scientist, preferably from KVK from the discipline concerned, should be appointed as "Coordinator" of the farm school and entrusted with the responsibility of managing and coordinating the farm school activities.
- vii) The farmer operating the farm school could also be reimbursed expenses on telephone so as to enable him and other trainee farmers to be in constant communication with the Coordinator or other experts/scientists to obtain periodic advisory services on farm related problems encountered by them, particularly, pest and disease attacks, climatic variations and effects on crops, natural calamities etc.
- viii) The Coordinator so appointed shall periodically monitor the activities of farm schools under his jurisdiction and act as a mentor, philosopher and guide to the Farmer running the farm school. He shall make atleast one visit to the farm school every fortnight to oversee and monitor the functioning of the farm school. A record of his visits to the farm school, important activities undertaken during the period and his comments on the functioning of the farm school, must be invariably entered in a register maintained for the purpose.
- ix) A course module for the specified farm school activity with a well-structured curriculum and week-by-week training plan should be prepared by the Coordinator.
- x) The performance of all the farm schools in each block should be reviewed at the FIAC meetings on a half-yearly basis. Similarly, the performance of all the farm schools functioning in the district may be reviewed on an annual basis by the ATMA Governing Board at the district level.
- xi) A few Farmer Facilitators could be selected from amongst the farmers trained under Farm Schools and given further orientation training at SAMETI so as to

involve them in dissemination of technologies and extension activities on a specified honorarium. A tie-up arrangement with corporate bodies especially those dealing in fertilizers, chemicals and marketing of farm inputs & outputs could also be attempted to utilize such Farmer Facilitators under PPP mode. The proposed eligibility norms for the Farmer Facilitators are given in Box-2.

- xii) Some of the farm schools can also seek financial support from Kisan Club programme of NABARD for a certain specified period.
- xiii) Gram Panchayats may be persuaded to provide land for running farm schools so that some permanent structure and model farms can be developed.
- xiv) The farm school once setup should continue at least for a minimum period of 3 years with some limited financial assistance particularly, for operational expenses, so as to ensure due stability, subject to satisfactory performance.
- xv) SAMETI or KVK may be entrusted with the responsibility to set up atleast one Model Farm School of an achiever farmer in each district in agriculture or allied sector, which would operate under their complete supervision and control to serve as a replicable model for other fellow farmers.

Box 2 : The Facilitator Farmer's Eligibility

- i) The farmer selected as Farmer Facilitator should have received training in Farm School during previous years.
- ii) His educational qualification should be at least 10th Class.
- iii) He should be between 35 to 45 years of age.
- iv) He should be physically alert, energetic and have a pleasing personality.
- v) He should have the motive to learn, acquire and adopt new technologies as well as the capability to motivate fellow farmers.
- vi) He should not be an active worker of any political party.
- vii) The farmers selected under the component will undergo five days orientation training at SAMETI. They may be trained by experts drawn from the SAUs / KVKs / State Department of Agriculture.
- viii) Training Expenses of the Farmer Facilitators will be met out of the financial provisions of Farm School.
- ix) In order to motivate the Farmer Facilitator for taking up extension activities or technical sessions in the Farm Schools, he should be given a specified honorarium.

10. Women in agriculture/Gender main streaming

The ATMA framework places strong emphasis on extension support to women farmers. It envisages utilization of a minimum of 30% of funds at districts level for the benefit of farmers. However, there is no system in place to record and maintain the actual expenditure incurred on women oriented activities or for the benefit of women farmer at the district level. It is therefore, necessary to issue clear guidelines to all the implementing States to introduce the system of recording expenditure on women

farmers under separate head and the MIS reporting formats may be suitably modified. The distribution of women in terms of farm size and education has brought out that most of the women farmers are marginal/landless category with much higher illiteracy, indicating that farming by women may largely be due to compulsion of illiteracy, separation / helplessness etc. However, in the unit of farmer family, women are equally involved in farming operation except ploughing but, they rarely seem to get a chance to attend any outside training etc. Hence, there is need to recognize them too as farmers. The main difference in occupational distribution of men and women is that animal husbandry especially dairy is taken up more by the women and it should, therefore be the focus of training, exposure visits etc. Concerted efforts are called for to promote effective women's groups so as to empower them for technology dissemination, shared learning, collective action and credit & savings activities. Small & marginal women farmer and landless women agricultural labour could be provided skill-based training in latest farm technologies and innovations as well as entrepreneurship development so as to improve their income level and quality of life.

There is need to increase women's access to services by promoting gender-sensitivity, training for extension agents and increasing the number of female extension staff. The following measures may enable extension services to reach out to women farmers:

- policy reorientation that explicitly recognizes women as agricultural extension clientele
- training of men and women extension staff to sensitise the role of women in agriculture, especially dairy
- training women on decision making in the context of farm and live-stock management
- training women farmers in agriculture marketing
- adequate representation of women folk in the training programmes

11. **Promotion of Self Help Groups (SHGs)**

SHGs can play an important role in approaches to devolution as it encourages people's participation and is demand-driven. This institutional innovation has made significant impact in terms of improving income level and standard of living of beneficiaries and empowered the rural poor, particularly the women. As per the size of holdings, 3.7 per cent of the respondents farmers are landless tenant farmers, 50.6 per cent are MFs and 23.6 per cent are SFs. The MFs are the relatively more (80 per cent) from the SCs and OBCs (56 per cent) as against 43 per cent in general category whereas the tenant farmers are mainly from the SCs in Haryana. Such farmers can neither be accessed individually by the extension worker nor would they

become members of CIGs due to limited holdings. Rural poor and landless need to be, therefore, organized into SHGs and encouraged to undertake some income generating activity after gaining experience and exposure to savings and inter-lending. The extension workers and perhaps, corporates will then find it easier to approach a group of farmers being cost effective too. However, the progress of SHGs in all the sampled districts was found to be very slow except a few new having been roped in Jalaun and Lucknow. NGOs have often played a pioneering role in introducing group-based and participatory extension methods. The assistance of some NGOs with good track record would be very helpful in promotion of SHGs. ATMAs in all the districts should make efforts to promote SHGs, particularly, women SHGs and provide them the needed skills to take up income generation activity in the farm and non-farm sector.

12. **Training & Capacity Building of extension officials**

The apex level National Institute of Agricultural Extension Management [MANAGE] had facilitated training to KVK trainers and SMSs in participatory rural appraisal techniques, SREP preparation and Group Formation. SAMETIs in both the States of UP and Haryana had organized several programmes for diverse skill up-gradation of district, block and grassroots workers in different areas such as farming system approach, participatory management, community mobilization, computer application, etc. The trained ATMA officials and district heads of line departments are also imparting training to members of block technology teams, farmers' advisory committees and farmers' organizations at the local level. Notwithstanding these efforts, it was revealed that many of the field functionaries and FAC members have still not received training in one or more aspects. Thus, a time bound and well-structured HRD plan for each of the ATMA districts needs to be developed to provide capacity building/training to all the field functionaries and stake holders. But the size of this target group being very large and varied in knowledge level, no single institute/agency could handle the training requirement. The involvement of KVKs, extension departments of SAUs and other local level training institutes and local resource persons must, therefore, be increased to supplement the efforts of SAMETI. The extension functionaries should also be sent on study tours to other state that have successfully implemented extension programmes to intensify and diversify their farming systems.

13. **Training of Farmers**

Training and acquisition of skills by farmers is an important component of the technology transfer system because of the new practices involved in production. Thus, the farmers were imparted knowledge & skills about new technologies and practices through training, demonstrations, exposure visits and Kisan Goshties under the farmer oriented activities. As per feed back of sample participants in these programmes, the utility of exposure visits is reported to be maximum (95 per cent)

followed by demonstration (93 per cent) and the least (69 per cent) being training. The feedback on the utility level of various 'farmer oriented activities' suggests that firstly, the exposure visits and demonstrations should be given more priority in allocation of funds in view of their utility being more than trainings. Secondly, the participation in these programmes was skewed across districts and it should be made more inclusive across districts on the basis of objective criterion like number of holdings or cultivated area or both with some weightage. While organizing various types of training programmes, focus should be laid on assessing farmers' needs and skills. The training programmes on system based and sustainable technologies such as Integrated Pest Management [IPM] and Integrated Plant Nutrient Management [IPNM] need to be enhanced. Organizing training and taking initiatives for capacity building of farmers towards agricultural marketing should receive due place in the training curriculum. There is need for a direct interface between farmer's and scientists in the training programmes to minimize transmission losses in the communication process.

14. **Sustainability of Extension Services**

Ownership of a programme by the intended target group is always imminent to ensure its sustainability. Though the ATMA scheme mandates that a minimum of 10% contribution should be realized from beneficiaries with respect to beneficiary oriented activities, however, this concept is yet to take shape in real terms. During the field survey, the farmers revealed that they would be willing to pay for farm advisory and other essential services provided the quality of such services were of high standard and also reliable. Thus, considerable scope exists for successful operation of the paid extension services in agriculture if qualitative farm advisory services are provided and timeliness of services is maintained. The small and marginal farmers, however, will be in a position to avail the paid services if they are organised into groups on commodity lines and the payment in borne by the group itself.

15. **Concurrent Monitoring and Impact Evaluation**

An effective monitoring and evaluation mechanism is an essential ingredient for ensuring success of the ATMA programme. Apart from the internal monitoring mechanisms through the forum of Governing Board at the district level and IDWG at the State level, the scheme also envisages third party concurrent monitoring on a quarterly/annual basis besides conducting periodic impact evaluation. However, the State Governments are reportedly unable to undertake concurrent monitoring due to budgetary constraints. Both internal and external monitoring / evaluation system are complementary to each other and are crucial for ensuring smooth progress of the programme. Monitoring and Evaluation becomes effective only when there is proper compliance and review mechanism characterized by complete transparency and involvement of each and every stakeholder. Unlike internal monitoring which

remains a routine type of supervision, the concurrent evaluation system helps in indicating the path of progress of the project on a periodic basis through the project implementation process and puts the project on right track by facilitating timely corrective measures and bringing about mid-course corrections/interventions. It is, therefore, suggested that the budgetary provisions for concurrent monitoring, evaluation and impact assessment may be suitably enhanced and necessary monitoring formats and guidelines may be devised centrally to ensure strict adherence to concurrent monitoring and impact evaluation of the ATMA programme. It is worthwhile considering participatory monitoring and evaluation by involving all stakeholders in designing indicators for M&E.

16. **Deployment of a dedicated manpower in ATMA Office**

The study team observed that synergy among the line departments was absolutely lacking in almost all the sampled districts. The responsibility of the major part of work under ATMA programme right from the preparation of the Block Action Plan to its ultimate execution has devolved on the Block Agriculture Officer and the deputy Director Agriculture, who are extremely overburdened. All the line departments including agriculture have their vertical hierarchy for their plans and monitoring and hence, there is lack of ownership even among officials. Even among farmer bodies, there is no stake and responsibility. Hence, the activities initiated in the project do not really reflect the demand-driven bottom-up planning. Decentralization process with role clarity and accountability with responsibility is yet to take a real shape.

Presently, the scheme has no provision for creating new posts and the manpower required for its implementation has to be provided by the State Governments from out of their existing staff strength on full time basis. However, ATMA in none of the districts had any separate or dedicated/exclusive staff to undertake various activities under the scheme though one or two staff namely, Technical Assistant/SMS had been entrusted with the task of ATMA. The Project Director of ATMA in his capacity as the Head of the Agriculture Department in the district is already overburdened with multifarious activities under multiple schemes of the Centre/State and hence the desired focus and attention to extension activities in the district is certainly lacking. During the pilot phase under NATP, ATMA was supported with higher resources, hand-holding by consultants, a full-time project director and intensive training by national level organisations. On the same pattern, ATMA in the district needs to be strengthened with a dedicated Project Director and a Dy. Project Director to look after extension activities under ATMA with forceful direction, undivided attention and pointed focus. Deployment of a retired senior official from the Central/State Government with agriculture background or from the research system having requisite administrative skills and leadership qualities could be considered. Similarly, competent and suitable technical support staff should also be deployed preferably on contractual basis in each district to give fillip to extension reforms.

17. Strengthening Extension at Block/Village level

- 17.1 While the institutional mechanism devised at the district level is gradually taking firm roots, the block level operations in the sampled districts have not moved at the same pace due to several impediments. The Farm Information and Advisory Centres [FIACs], comprising of Block Technology Team [BTT] and Farmers' Advisory Committee [FACs] is envisaged as a platform where the farmers and the extension functionaries from each line department come together and discuss, plan and execute extension programmes at the block level. FIAC is, by design, the single-window delivery mechanism for extension programs within the block. It is, therefore, imperative that the ATMAs in both UP and Haryana take up the task of construction of FIAC buildings in all blocks on priority and equip them with necessary infrastructural facilities viz. computer with Internet facility, audio-visual aids, library etc. so as to demonstrate and facilitate information for the farming community thereby ensuring effective monitoring, coordination and execution of field activities. Further, FIACs in all the blocks should provide farm related information and advisory services such as farm inputs, market access, competitive price of produce, weather information etc. Further, the FIACs within the district may be networked electronically to enable information sharing.
- 17.2 The existing extension mechanism within the districts is suffering from several ills such as excessive workload on agriculture department staff at block level, inadequacy of manpower in line departments, non-technical nature of responsibilities for field level staff, limitations of the field level extension functionaries to address ground level problems, low level of involvement of Farmers' Organizations/FIGs, etc. Hence, there is a strong need to sort out such administrative issues to provide continuity to the scheme. There is need to strengthen and upgrade the FIACs for effective dissemination of technologies among farmers. One of the options that could be explored is to handover the operationalisation of FIACs to KVKs or NGOs. The NGOs selected for the purpose must have a good reputation and standing with competence to undertake the task. NGOs which are already involved in different extension services for the farming community could be selected after assessing their efficiency, manpower and infrastructure etc.
- 17.3 FIACs have a critical role to play in filling up gaps in training and HRD needs of the FIAC members, both officials and farmer members. There is a felt need for a comprehensive capacity building of block level functionaries as well as the FAC members, FIGs and Farmers' Organisations in the blocks in terms of concepts of the project, formation of groups, preparation of block plans, participatory mechanism, conflict resolution, use of IT and technical skill upgradation.
- 17.4 The ATMA framework at the block level must involve Panchayati Raj Institutions particularly, for creating awareness among farmers, selection of beneficiaries for

various extension programmes as well as actual conduct of training programmes, on-field demonstrations, etc. as already envisaged under the scheme.

17.5 The needs of FIACs are diverse and the issues referred to by farmers need immediate redressal. KVKs and Zonal/Regional Research Stations of Agricultural Universities will have to be more responsive to farmer's needs and should play a proactive role by providing timely scientific advice and technical inputs so that the technological dissemination and adoption becomes demand driven. KVKs/ZRSs should work as a continuous resource organization for FIACs and prepare a database of progressive farmers for access by any FIAC, extension worker or farmer to enable exchange and sharing of technological innovations.

17.6 The Convener of the Block Technology Team who is invariably the Agriculture Officer in the Block both in UP and Haryana is under tremendous pressure due to their involvement in multiple schemes/programmes of the centre and the State Government. In the process, the extension activities at the block level seem to be not getting the desired focus and attention. In order to actuate the extension activities in the block level and to make it farmer driven and accountable as envisaged under ATMA, the mechanism at the block level i.e. FIAC should have its own dedicated staff for effectively undertaking village level extension activities and to bring about synergy among all the line departments. For this purpose, the ATMAs should be allowed to recruit technical specialists and field functionaries (Krishi Sainik, Krishi Mitra, Krishi Sangathan or such other nomenclature) on contractual basis for providing technical support to progressive farmers on the model of Maharashtra and some other States. The technical experts would enhance the capacity of progressive farmers for providing extension support with a group approach i.e. group of farmers producing the same commodity.

18. **Strategic Research & Extension Plan (SREP)**

18.1 SREP exercise was initiated in all the sample districts during 2005-06 immediately after launch of the scheme and the document was commissioned mostly around February-May 2006. It is almost four years since then and there has been virtually no review and updation of this vital document. It is, therefore, felt that the SREP should be invariably reviewed and updated after every three-year period to keep pace with the changes & times. The review and updation could be facilitated by KVK with the support of SAU and other concerned agencies.

18.2 In order to create awareness among the farmers and other stakeholders about the significance of SREP, it is necessary to launch a wide publicity campaign by the ATMA body at the district level with active participation and involvement of all the line departments, KVKs, SAUs, Farmers' Organisations/FIGs, Corporates and NGOs.

18.3 The SREP guidelines should be revised to comprehensively cover planning; operationalization and true convergence/integration of ATMA with other schemes of centre/State Governments at the block/village level. The SREP document may also contain best practices and success stories from the districts as also lessons drawn therefrom.

19. **Involvement of Voluntary Sector**

The voluntary sector can play a pioneering role in introducing group-based and participatory extension methods. The assistance of some NGOs with good track record would be very helpful in the promotion of multi-agency extension strategies through mobilization of farmers and capacity building of Farmers' Interest Groups. The input dealers being in closer proximity to farmers in villages can also be gainfully engaged in activities related to marketing and providing backward & forward linkages apart from input supply with the objective of creating self-reliant mechanisms.

20. **Public-Private Partnership (PPP)**

The restructured mechanism in the form of ATMA envisages a major thrust in promoting private sector involvement in providing need-based extension service at grass root level. While the process of public-private partnership has begun in both the States of UP and Haryana, there is still scope for greater involvement of public sector in extension activities. The Farmers' Interest Groups (FIGs) formed at grass root level needs to be linked with the private sector through contract farming. ATMAs should facilitate a formal contract agreement between FIGs and corporates including quality specifications, volume, price and other production and post-harvest requirements. PDs should make conscious efforts to provide technical inputs to FIGs through the agripreneurs trained under ACABC scheme and also facilitate linkages of the farmers' groups with financial institutions for micro-credit in line with SREP strategies. ATMAs should aim at improved farm income by strengthening market linkages such as linking primary producers to processors, promotion of value addition at the local level and linking producer groups to other institutions in addition to providing technical support and credit. The time has come to expand the scope of extension beyond the conventional role of technology dissemination by providing a wide range of support to farmers. PPP should be encouraged to take increasing responsibility of handling grain marketing. The public infrastructure like transportation and storage could be shared with the private sector to make the partnership an effective marketing institution to facilitate more information, fairer trading, better prices and greater transparency in its functioning. Thus, PPP in various modes can provide synergistic approach in the extension efforts.

In some districts, a number of private organizations were found working in isolation providing diverse services. The ATMA structure at the district level must have an

inventory of such private sector extension providers and also make efforts to forge an alliance with them.

21. General/Farm Related

- 21.1 Farmers are required to be sensitized on the use of [i] Light traps, [ii] Bio-pesticides [iii] Rhizobium culture [iv] PSB culture [v] Azotobactor and, [vi] Bluegreen algae, on a regular basis, as the same is not much in use.
- 21.2 Procedure for supply of soil test reports, sample checking reports for micro nutrients may be streamlined to ensure that the reports are supplied to the farmers well in time to enable them to take timely decision on the use of needed dose of fertilizers, etc. There is also a felt need to sensitize farmers on the need for water quality checking. The setting up of test labs at convenient places perhaps also needs a re-look.
- 21.3 There are still many farmers who are not using the recommended doses of NPK. The pesticides use is showing increasing trend, which should be a cause of concern. More efforts are required to sensitize farmers on the use of proper doses of fertilizers and less use of pesticides for the sake of sustainable agriculture and crop productivity.
- 21.4 Organic farming is cost effective and good for soil health. The concept of the compost farming is, however, in its nascent stage in the study districts. ATMA offers a good opportunity to expose farmers to the making and using of organic fertilizer by imparting training and demonstrations on its use. Farmers should be taken on exposure visits to see the practitioners of organic farming in other States to gain knowledge and practice.
- 21.5 The Farmer Advisory Committee (FAC) being a vital arm in the bottom-up extension strategy under the ATMA model should meet preferably on a monthly basis to discuss and plan the extension priorities as also to monitor the execution of block level programmes as determined in the BAP. During the interface of the field study team with the members of FAC in the sample blocks, a large majority of them felt that no separate meetings of FAC had been held since the member farmers in the block are spread across villages far and wide and there was no attraction to travel all the way for a meeting leaving their vocation, in the absence of any allowance or incentive. They were, however, attending the joint meetings of FIAC comprising of BTT and FAC which are also not held as envisaged under the scheme but are infact convened usually once during each crop season. It is, therefore, suggested that the members of FAC may be allowed some fixed allowance or incentive for attending the meetings of FAC to encourage participation and involvement of all members in extension activities.

- 21.6 Keeping in view the technological advancements, it is imperative that the ATMAs in all the districts are networked electronically so as to foster information sharing particularly on the success stories, best practices, research and extension issues, application of innovative technologies & strategies, etc. Besides, all the ATMAs in the district should have their own website to share information regarding their activities to the outside world.
- 21.7 ATMAs should play a critical role in reducing post harvest losses that are estimated to be about 25 per cent of country's total farm harvest. Though some attempts have been made for promotion of cold storage for reducing the post harvest losses, marketing still appears to be a major problem confronting the farmers. Further, processing of fruits & vegetables for value addition is still not effective in the sampled districts. Intensive efforts are required to be made for setting up processing units in the districts preferably with active involvement of NGOs and Corporates which would not only minimize the post harvest losses but also aid in value addition thereby leading to employment generation and increased livelihood security in rural areas. The Governing Board could also consider allocating funds to KVKs for setting up a small processing unit in their centre to serve as a model demonstration unit for the benefit of farming community in the district.