AFGHANISTAN AGRICULTURAL SECTOR SUPPORT PROJECT

PRIVATE SECTOR AGRIBUSINESS (ASSP/PSA)

AGRICULTURAL EXTENSION SYSTEM FOR AFGHANISTAN: APPROACH, STRATEGY AND FEATURES OF A REFORMED EXTENSION SERVICE

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EXECUTIVE SUMMARY

Major changes in the Afghanistan Agricultural Sector Support Project necessitated a re-examination of the Agricultural Development and Training extension approach to cope with the demands of rehabilitating Afghan agriculture. Dr. John Conje, extension consultant, was requested to define an agricultural extension system suitable for Afghanistan in light of these new developments.

A reformed extension system is proposed. It has a combination of the following core characteristics: (a) farmer-focused; (b) a single line of command; (c) sufficiently flexible to respond to local priorities, available staff and other resources, and administrative structures; (d) replicable, with local adjustment, on a national scale; (e) clearly defined monitorable tasks and scheduled field activities; (f) focuses on priority crops/operations; (g) farm visit is the chief extension method; (h) farm trials and demonstration plots allow less room for misunderstanding of technical messages; (i) time-bound work based on regularity of visits and regularity of training; and (j) links with sources of technology and input suppliers.

The objective is to develop an efficient extension service that will assist Afghan farmers rehabilitate their war-affected agricultural productivity in targetted areas in Afghanistan.

The approach and strategy encompass the following: (a) trained cadre of extensionist; (b) flexibility; (c) sustainability; (d) integrated system within a specified area; (e) focused messages on priority crops/operations; (f) production recommendations; (g) tying subsidized input to technology adoption; and (h) encouraging private sector initiatives.

The major recommendations are directed toward strengthening the current extension service: (a) adopting a modified training and visit system of extension; (b) developing production recommendations on pritority crops; (c) a systematic ordering of priorities between competing demands of different programs on field staff time; (d) a systematic work planning for field staff; (e) more mobility for extension agents; (f) improved communications between headquarters and field; (g) emphasis on supporting the Village Extension Worker; (h) upgrading the technical competency of staff; (i) documenting success stories; (j) a system of staff evaluation and a corresponding reward system; (k) improved linkages with non-governmental organizations; and, (l) a constant review of the system to ensure that staff, functions, and component actively contribute to efficient, field-based, farmer-responsive extension service.

ABBREVIATIONS

ADT	Agricultural Development and Training
AES	Agricultural Extension Supervisor
ASSP	Agricultural Sector Support Project
DAI	Development Alternatives, Inc.
NGO	Non-Governmental Organization
PPA	Program Planning and Analysis
PSA	Private Sector Agribusiness
SMS	Subject Matter Specialist
T&V	Training and Visit System
USAID	United States Agency for International Development
VEW	Village Extension Worker
ZEO	Zone Extension Officer

I. PURPOSE OF REPORT

The purpose of this report is to define an agricultural extension system approppriate for war-affected Afghanistan and recommend procedures that clarify the responsibilities and requirements of headquarters staff based in Pakistan and field staff in Afghanistan.

The methodologies used include: interviews with Agricultural Development and Training (ADT) staff; participation in staff program planning and training meetings; review of project files; field visits to research stations and training centers; interviews with other agencies implementing agricultural projects inside Afghanistan.

II. BACKGROUND

Prior to the December 1979 Soviet invasion, Afghanistan was one of the ten poorest nations in the world. Now, after nearly 13 years of war, the country is even more desperately poor. At least one million and a half people have died as a result of fighting, disease, and malnutrition. About five million Afghans are now in refugee camps in both Pakistan and Iran and the numbers of internally displaced Afghans is estimated at more than 1.5 million.

Agriculture was and continues to be the dominant sector in the Afghan economy. Thirteen years of intense internal conflict has had a devastating effect on the Afghan economy and on agriculture in particular. Destruction of field crops, indiscriminate aerial distribution of anti-personnel mines, government-led assaults and reprisal on villages believed to have supported the mujahideen have led to the depopulation of large agricultural areas, damage to key transport and irrigation infrastructure and reduced agricultural output to less than half of its pre-war product. In the rural areas where relative stability has emerged since the stalemate brought about by the withdrawal of Russian forces, the agricultural life of the country is re-emerging. On-going peace talks appears to be headed towards resolution of the conflict.

The rationale for the Agricultural Sector Support Project (ASSP) is that the provision of assistance will help ensure that conditions inside Afghanistan are such that the existing and returning populations are able to sustain themselves in the near term. Agriculture and its related activities will continue to be the primary livelihood for the majority of Afghans for the foreseeable future. However, extensive damage to the rural agricultural infrastructure, unavailability of sufficient amounts and types of agricultural inputs, and damage to and lack of

maintenance of roads and irrigation schemes have left this sector in poor condition to sustain the needs of several million returning Afghans. Therefore, the Project has identified a strategy that will facilitate the sustainability of war-affected Afghans through increased agricultural production.

The Agricultural Development and Training extension component of the ASSP was added to the responsibilities of Development Alternatives, Inc. (DAI) in April 1990. It assimilated the agriculture extension capacity which was established under the earlier phase of the ASSP. This has involved the training and deployment of approximately 49 field staff working inside Afghanistan and 16 staff in Peshawar and Quetta.

The ADT extension service responds to the need to rehabilitate agricultural productivity in Afghanistan. In the absence of a national or even regional government, the project made accomodation with local shuras and commanders operating in territory under the control of the mujahedeen. From twelve ADT Centers inside Afghanistan, the ADT extension sevice has operated to help farmers. In circumstances that deny U.S. nationals access to Afghanistan, the program depends upon cross-border travellers and project monitors for its eyes and ears.

As originally envisioned, the ADT will serve as the commercial demonstration, testing, and extension arm of the Private Sector Agribusiness (PSA) component of ASSP. The United States Agency for International Development's (USAID) decision to terminate PSA activities in light of new realities, major changes in ADT staffing, and the transfer of DAI headquarters from Peshawar to Islamabad, called for a definition and re-examination of the extension objective and strategy needed to cope with the demands of rehabilitating Afghan agriculture. This report defines a reformed extension system and its objectives, describes the features of a training and visit system of agricultural extension, suggests a strategy and approach, and provides a program of extension implementation activities.

III. OBJECTIVES OF THE REFORMED EXTENSION SERVICE

The primary objective of the ADT component of the ASSP is to develop an efficient extension service that will assist Afghan farmers rehabilitate war-affected agricultural productivity in project areas in Afghanistan. Headquarters staff and field staff will be trained and provided with necessary material support to enable them to perform their role as extension agents more effectively.

The Extension Service will focus its attention on:

- identifying farmer's production constraints (see Annex 1) and assisting him in finding ways and means to solve them.
- Introducing, testing, demonstrating, and educating farmers on new improved production technology.
- promoting cooperative relationship between farmers in the transfer and sharing of new technology.
- providing accurate information on the agricultural situation inside Afghanistan (in coordination with Program Planning and Analysis).

To achieve these objectives, a program of implementation activities has been developed (Annex 2).

IV. APPROACH AND STRATEGY

A. Trained Cadre of Extensionist

The approach is to establish a trained cadre of extensionists working in close collaboration with local community leaders (shuras). They would be in the staff of DAI until political events allow them to be employed by an Afghan organization. There is little risk in the actual training. DAI has been conducting training courses successfully for two years. The main risk is in the degree to which the trained extensionists perform in the field. DAI would monitor their performance and strengthen the extension service through the implementation of a more methodical training and farmer visit system that will address the identified needs of the current extension service (see Annex 3 for list of identified needs).

B. Flexibility

Planning for agricultural extension activities must be flexible enough to take advantage of the changing political and economic situation in Afghanistan. It should reflect farmers changing priorities in response to changing circumstances and changing awareness of different inputs.

C. Sustainability

Extension's emphasis will be less on the provision of emergency inputs but is looking further ahead in developing strategies which will lead to sustained development.

D. Integrated System Within a Specified Area

Under the proposed approach, technology transfer, required inputs, and other agricultural services will be operated and administered as an integrated system within a specified area. The extension activities should be initially restricted to the area of greatest potential to maximize the impact on national productivity as well as for the local economy and located within easy reach of the headquarters at Islamabad and bases in Peshawar and Quetta. These functions will be carried out through the 12 ADT Centers already established and operating in ten provinces (Figure 1). In some later date, as the situation warrants and techniques are refined and, more resources available, the project will operate on a wider basis.

E. Focused Messages on Priority Crops and Operations

Technology transfer will be in the form of focussed messages and targetted on increasing production of priority crops and operations (wheat, corn, rice, potato, fruit trees-apricots, almonds, pomegranetes, apples, vegetables, machinery, plant protection, animal husbandry).

F. Production Recommendations

The major production recommendations will be on: use of improved seed varieties in wheat, maize, rice, potato; proper seed selection (staking) in potato; row planting with maize; use of suitable machinery; efficient irrigation system for horticultural crops; proper drying of apricots; proper planting of fruit trees; techniques in budding, grafting, and pruning fruit trees; plant protection.

G. Other Strategies

Other strategies include: reducing the cost of farmers own "learning by doing" through subsidized input prices-these subsidies can help reduce subjective risks and speed early adoption; requiring farmers to use the recommended technology as a condition for receiving subsidized inputs; seed multiplication; participation of input suppliers and other agricultural services in training programs; contractual arrangements with nurserymen to get them started in establishing their own nurseries.

V. FEATURES OF THE REFORMED ADT EXTENSION SERVICE

The reformed ADT extension system is patterned after the training and visit system (T&V) system of agricultural extension. Since its conception by Daniel Benor of the World Bank in late 1970s, some 40 countries have adopted the T & V extension system. The system was modified to fit conditions existing in Afghanistan, available manpower and project resources and, the logistics of operating an extension service based in Pakistan.

A. Main Features

1. Training and Visit

The basic feature of the ADT Extension Service is a systematic program of training for the Village Extension Worker (VEW) combined with trials carried out in farmers field (farm trials). In the field, the VEW teaches farmers recommended agricultural practices, shows them how to implement these practices, motivates them to adopt some on their own fields, and evaluates production constraints and advises farmers how to overcome them.

The system is organized to give the VEW every forthnight (once every two weeks) intensive training in those specific agricultural practices and recommendations that relate directly to farm operations during the coming weeks (crop season) and to provide him with suitable technical and supervisory guidance to enable him to teach these recommendations well to farmers. The VEW visits on a regular schedule (usually, once every two weeks) on a fixed day known to all farmers and his supervisors, each of the eight small groups of farmers with which he works. Other staff, all of whom support in one way or another the work of the VEW, have similar fixed work responsibilities and training. The main idea is that the T & V provides the extension worker with a detailed work program. How the system works are explained here.

2. General Organizational Structure

The organization of the T&V system of agricultural extension is based on the total number of effective, operating farm families, and the number of families that one VEW can be reasonably expected to cover.

Under the proposed system (see Organigram on page 38) one Agricultural Extension Supervisor (AES) guides, trains, and supervises three to seven VEWs. Two AES are, in turn, guided and supervised by a Zone Extension Officer (ZEO) based at the headquarters in Islamabad. The ZEOs are the eyes and ears of headquarters staff who are unable to travel inside Afghanistan. A team of Subject Matter Specialists (SMSs) provides specialized technical support to extension management, consisting of the Deputy

Director for Extension and his extension coordinator. This proposed system fits the existing administrative structure to minimize any confusion and resistance that might accompany the introduction of the system, and will help make full use of the facilities already available at existing administrative levels.

The proposed ADT Extension Organization Chart is shown on page 39.

3. Village Extension Worker

The number of farm families a VEW can cover will vary from place to place depending among other things, on the VEWs mobility topography, weather during the main agricultural seasons, settlement patterns, density of population, density and pattern of roads, intensity and standard cropping, types and diversity of crops, and types of farming systems. The accessibility of farmers to the VEW is perhaps the most critical factor, but there is no simple, rigid rule for weighing all these factors to determine the "right" ratio of farm families to a VEW. This is a matter of careful judgement based on field visits and experience.

Where the population density is high, with many small farmers living closely together, and only a few main crops dominate agriculture, a ratio of one VEW to about 800 operating farm families will generally be adequate; in some areas with very good farmer accessibility, a more suitable ratio could be one to 1,200 or more. Where population is dispersed or farms are larger, a ratio of 1:500 may be appropriate. In some special cases, as in sparsely settled or mountainous areas, a suitable ratio may be 1:300. The number of actual operating farm families is taken as the denominator of the VEW:farm family ratio as they normally represent the basic farm decisionmaking unit.

The number of farmers will generally be larger than the number of actual operating farm families since, for example, a farmer and his grown sons normally represent only one operating farm family and a joint family consisting of a few farmers (e.g., brothers) working together is considered as one operating farm family.

The operating farm families in a VEW area of jurisdiction - the "circle" are divided into eight groups of about equal size. Such factors as geography, size of the village, and ease of communication within the circle are taken into account when forming these eight farmers groups. The VEW will live in his circle. In consultation with village leaders, the shuras (but not exclusively on their advice), the VEW will select about ten farmers in each group to be contact farmers.

The VEW visits each of his farmers groups according to a fixed schedule of visit that must be known to all farmers and

supervisors. On each visit, the VEW tries to see at least most of the contact farmers of that days group and some other farmers as well. All other farmers in the group are also welcome to meet the VEW on this day, any of them may participate in his visits to fields and in discussions. The Vew visits farmers fields, discussing, explaining, teaching, and demonstrating the recommendations for that week or periods, checking progress, and helping with any technical problems farmers may have. If the VEW knows the answer to such problems, he gives it; if not, he should bring the topic up at his next training seesion. The VEW should at once notify his immediate supervisor-the AES- of any emergency, such as a virulent pest attack.

Another possible visit schedule is for the VEW to visit two farmer groups a day. A weekly visit schedule may be appropriate in intensely irrigated areas with diverse cropping patterns, or at the peak season of pest attack. Still another possibility is to shift from a weekly to a fortnighly schedule and back again, depending on the requirements of the cropping season.

The intensive series of forthnighly visits, in accordance with a fixed schedule known to all, results in the farmers themselves acting as supervisors of the VEW. Each week, the VEW devotes four days to visits, so he covers his entire circle of eight groups in a forthnight. He will spend one of the two remaining working days each week in in-service training. This in-service training is a crucial part of the extension system. Since it is through these training sessions that VEW learns what to teach farmers during his coming visits. The main training session each forthnight-the forthnighly training session will be conducted by a team of Subject Matter Specialists ; the other training will be organized by the AES of a given VEW's circle. At the forthnighly training session, the VEW also has an opportunity and obligation to bring farmers' problems to the attention of the more experienced and specialized extension staff who are his trainers.

The forthnighly training is the most important training for VEWs. The sessions are scheduled and organized so that the VEWs and their AESs are trained together for a full day. The sessions cover only the crucial farming operations for the coming two weeks, but these are covered thoroughly. No more than one half of a forthnighly training session should be spent in lectures; the remainder should be devoted to practicing the skills required to implement recommendations, rehearsing the presentation of messages for the coming forthnight, and preparing simple visual aids to support the recommendations. VEWs should be given pamplets and posters and silk screens summarizing the recommendations, as well as samples (of new seed varieties, for example) that they may use in their contacts with farmers. The goal of these training sessions is to make the VEW a "subject matter specialist" on the few points of particular relevance and importance to the farmers in his circle during the coming forthnight; at the same time, his technical

ability will gradually be upgraded, so that eventually he is able to advise farmers on their total farming system.

VEWs and AESs should coordinate with local suppliers and traders to know whether and which inputs are available in their areas and what inputs farmers will most probably require. The same is true for suppliers of agricultural services. For this reason, traders and suppliers of agricultural services should participate in forthnighly training sessions. Such matters should normally not take up much time of a session, and should be on the program at a generally known, regular time.

The other regular training session during each forthnight is the meeting conducted by the immediate supervisor of the VEW-the AES-for the three to seven VEWs in his charge. This should be a fairly informal session during which points raised in the previous weeks's forthnightly training session are reinforced and/or clarified, and problems encountered in the field by VEWs are discussed and either resolved or noted for taking up with the SMS at the following weeks training session (unless there is an emergency situation requiring immediate advice). Modification of recommendations to make them better suited to local conditions should be discussed at these meetings. Whatever small amount of office work or reporting is necessary can be done at this time also, but this is not an administrative meeting.

This schedule of visits and training takes up ten of the twelve working days a VEW has each forthnight. During the remaining two days, the VEW makes extra visits to review farm trials, arranges special extension activities such as field days, makes up visits missed because of illness, holidays and so on, and does any necessary reporting work. Each VEW keeps in his diary (in which he records on a daily basis his activities and field progress made, as well as problems encountered by farmers) a table covering one forthnight showing his fixed days for visiting each group and for other activities. This timetable applies to every forthnight. The AES keeps such tables for each of the VEWs he supervises. A typical table is shown.

Typical Forthnighly Visit and Training Timetable for a Village Extension Worker

FIRST WEEK							SECOND WEEK						
SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUES	WED	THU	FRI
1	2	MTG AES	3	4	EXT VIS	H	5	6	TRA SMS	7	8	EXT VIS	H

Explanation:

1-8 = number of farmer's group being visited.

MTG = meeting of AES with his VEWs.
AES

EXT = Extra visits for checking farm trials, holding fields days.

VIS = making up visits missed because of holidays or illness, and so on, and for doing reporting work.

TRA = Forthnightly training session (of AES and VEW).

SMS conducted by SMSs.

H = Holiday

4. Contact Farmers

Frequent contact between a VEW and all farmers in his circle is not possible. Instead, while being responsible to all farmers, on each forthnightly visit the VEW focuses on a small, selected number of farmers-"contact farmers"-in each farmers group, and meets with any other farmers who are willing and interested to attend his visits and seek his advice. Contact farmers are identified by the VEW and the AES with assistance of the local villagers, especially the shuras. Contact farmers are selected according to the following characteristics: (1) they should represe nt proportionately the main socioeconomic and farming conditions of their group and be regarded by other farmers as able and worthy of imitation; (2) they should be practicing farmers; (3) they should be willing to adopt relevant recommendations on at least a part of their land, allow other farmers to observe the practices, and explain the practices to them; (4) as far as size and composition of farmers' groups permit, they should come from different families; and (5) their farms should be dispersed throughout the group area. Tenants, sharecroppers, young farmers may be contact farmers if they possess these characteristics. No major type of farmer shoud be over-or underrepresented among the contact farmers of a group. Once a contact farmer becomes disinterested in the work of the VEW or becomes in other ways ineffective, he should be replaced.

B. Other Operational Features

1. Links with Outside Sources of Technology and Inputs

In the absence of support from a productive applied research body in Afghanistan, linkage should be made with relevant outside sources of technology, such as, Pakistan research organizations, International Agricultural Research Centers, and other international sources of technology and technical expertise. Without research backing, extension may provide farmers with general support, timely reminders, and demonstrations of better practices, but it is unlikely that it can effectively transmit to farmers the significant improved practices (including new varieties, crops, and cropping patterns) that lead to the marked increases in productivity that are required for rapid, sustained agricultural development. The links between extension and research should be strengthened through formal workshops as well as less formal measures such as personal contacts and casual meetings. Relevant input suppliers should be identified and contacts made. The effective use of improved agricultural technology by farmers depends on the availability of essential inputs and agricultural services. Other organizations operating inside Afghansistan are valuable sources of locally developed technology.

2. Farm Trials and Demonstration Plots

Trials carried out in farmers fields-farm-trials- are an important feature of extension operätions. Such trials provide a final testing ground for research findings before they are demonstrated and recommended by extension on a large scale. The program of farm trials is developed jointly by outside specialists, headquarters staff, and field staff. Subject matter specialists provide technical guidance to extension supervisors and village extension workers who are responsible for carrying out the farm trials. Subject matter specialists and headquarters extension staff together analyze the results of these trials.

Farm trials should be simple, normally involving no replications on the same farmers field. The reliability of the results of these trials is ensured by carrying them out in relatively large numbers. Each VEW should be involved continuosly in some farm trials under the guidance of his AES and SMS. If a trial is successful, the VEW should explain it to other farmers, using the field as a demonstration plot and the site of a field day.

3. Production Recommendations

Production recommendations are the specific agricultural practices that extension teaches farmers. They represent the most suitable and economically viable production technology for a crop under a farmer's production conditions. Without production recommendations, it is impossible to plan, implement, monitor, or evaluate extension work, and extension staff are unlikely to be able to assume their desired active, diagnostic role. All priority crops and practices should be covered by production recommendations, although at any given time extension will emphasize selected key points from the recommendations. Recommendations should be so designed that farmers would be willing and able to follow them. Therefore, recommendations that represent a new practice for a farmer must be financially feasible, result in increased production and income, and entail minimum risk. Recomendations are provisionally developed at headquarters; they are refined at the annual winter training program in Pakistan with participation of field staff to take account of local field and production conditions. To be useful to farmers, recommendations must be continually reviewed and adjusted in light of changing production conditions.

4. Other Extension Methods

Extension methods in the training and visit extension system focus on the individual contact of the extension agent and the farmer during regular and fixed visits to farmers fields. In addition to the individual communication and skill-teaching that the extension agent uses during these field visits, a number of other extension methods can increase his effectiveness in teaching recommended practices to farmers and in encouraging their use.

One important way is to use a farmers own field, where he has implemented a particular recommended practice, as a demonstration field. It is more convincing if farmers see a practice successfully applied by another farmer on his own field, than if they see a formal demonstration that has been prepared by the extension agent.

From time to time, meetings with farmers are useful. For example, they may be held-on scheduled or extra visit days-before the start of the season to discuss the extension program for the season, or to spread rapidly a recommendation during pest or disease emergencies. Meetings should however, not be held at the cost of time during which the extension worker could be meeting farmers in their fields, and not as a matter of routine particularly if attendance is slight or comprises chiefly those farmers who are also met in the fields. The purpose of field visits is to enable the extension worker to meet with, and teach recommendations to contact farmers and other farmers, and to learn of their production conditions and problems. Formal meetings should only be held so long as they clearly help in this. At times, it may be useful to show relevant charts, and to distribute silk screens and pamphlets on extension activities and recommended technology. Such support can be effective, but not a substitute for field work.

Extension workers may organize field days for one or more farmers groups to allow farmers to see plots where recommended practices have been adopted. AES, SMS, Training Officers, and other extension staff should participate actively in group activites organized by VEWs.

Mass media (radio, televison, newspapers) is not a feasible means of communication at this time.

5. Other Training

Regular in-service training for staff is required in addition to the annual winter training. The training needs of staff vary greatly. The Deputy Director for Extension, assisted by a Training Officer, should annually determine the general training priorities. Taking account of the needs of individual staff, a training program must be developed.

A very important training requirement is thorough orientation and reorientation of all staff to the extension system and in particular to the principles upon which it is based, the functions of different staff, working procedures, and the formulation of production recommendations and impact points the system is to convey. A main goal of such orientation training is to develop among staff of all levels a good understanding of the system and their role in it. Orientation training should be given continually, not only for staff new to the system (such the PSA recruits) but also as a refresher training for other staff.

All staff continue to require technical training to develop their understanding of key production recommendations for locally important crops as well as to update their knowledge of general agricultural technology. Such requirements of technical training for VEWs and AESs may be met through short courses given by SMS.

Subject matter specialists and senior extension staff will require more intensive training at agricultural universities or central research institutes or even overseas.

Since many extension staff are engaged in supervision and management, appropriate training should be given in these aspects. All staff, not only VEWs and AESs will require intensive training in extension methods and relevant communication techniques.

Training courses like those noted above are designed to upgrade the quality of staff at each level to allow them to contribute more effectively in an everchanging agricultural and technological environment. For this reason, training needs must be identified locally and individually, and the courses must be practical.

Aside from from formal training courses, informal means of training must not be ignored. Every contact between supervisors (including SMS) and extension staff, particularly in the field, should be taken as an opportunity for guidance and strengthening. Also important are the opportunities given to extension staff, individually or small groups to review extension activities in other areas. If carefully planned and based on specific objectives, such visits quickly spread good extension methods.

6. Monitoring and Evaluation

Effective monitoring and evaluation contributes significantly to the quality of agricultural extension. It helps ensure that the extension service operates efficiently, enables management to take action to overcome shortcomings in extension operations, and provides policymakers with appropriate information on which to base decisions.

Monitoring and evaluation is not a substitute for the direct field supervision that is an integral part of training and visit extension, but it is an independent and quantitative cross-check of the progress and results of field activities. It is not a fault-finding mechanism, but rather a supportive means to suggest problem areas that may not be readily apparent through the regular review of extension activities. Used positively and constructively, monitoring and evaluation can help create the atmosphere of trust, honesty, and self-criticism upon which good extension depends.

Monitoring keeps track of extension activities and of progress in the implementation of the extension system. Evaluation determines the impact of extension activities. Monitoring and evaluation of training and visit extension involves mainly three activities, the first of which is being done by extension managment and the other two by a discrete monitoring and evaluation unit. Extension management staff are responsible for the routine internal monitoring of extension activities (staff employed, training conducted, field visits made, and so on). Another monitoring and evaluation activity is the undertaking of special studies of particular aspects of the extension system by monitoring and evaluation unit staff or consultants.

VI. RESPONSIBILITIES AND REQUIREMENTS OF EXTENSION STAFF

Every staff member should have a clear definition of his responsibility and authority. At all levels, extension work must be field oriented.

The work of all extension staff should be focused on supporting the field-level agent, since he is the only extension worker who is in regular direct contact with farmers, teaches them extension's messages, and handles much of the feedback on their problems and reactions to the Project's programs.

A. Field Staff in Afghanistan

1. Role of the Village Extension Worker - the Circle Level

The main responsibility of the VEW is to visit regularly each of the farmers' groups on his area of jurisdiction (the circle), and to teach and try to convince farmers to adopt recommended production practices. He must also advise farmers on the price and availability of necessary inputs and market conditions. He should report farmer response to recommendations, production problems, input demand and availability, and market conditions to his supervisor (the Agricultural Extension Supervisor) and in training. Days without a regularly scheduled visit or training are used for make-up visits, farm trials, and field days. In addition to making field visits, the VEW must attend a training session inside Afghanistan given by SMS and winter training program in Pakistan and a review meeting with his Agricultural Extension Supervisor.

Each VEW should have an appropriate vehicle to enable him to reach his farm groups easily. An adequate, fixed monthly travel allowance will be required to meet the cost of maintaining a bicycle or motorcycle and to cover the cost of meals taken in the field.

To ensure close contact with the farmer he serves, the VEW must live in his circle. Unless he already owns or is provided with quarters in his area of jurisdiction, he should rent quarters there. If housing is not provided, the VEW requires a housing allowance sufficient to cover full rental costs.

In addition to the activity described above, funds should be budgeted for the VEWs extension operations, including funds for demonstration plots and farm trials, field days, materials to make visual aids, production inputs currently provided by the project and so on.

2. Role of the Agricultural Extension Supervisor (AES).

The AES has two basic functions. The first is to review and assist in the organizational aspects of the job of the VEW; the second, to provide technical support to the VEW, in particular to see that production recommendations are effectively taught to farmers and that field problems encountered by VEW, and which he himself cannot resolve, are passed on immediately to appropriate channels. Like the VEW, the AES is primarily a field worker. He spends a scheduled number of days in the field visits of the VEWs of his area of jurisdiction (the "range"), in particular to make sure that farmers are being visited regularly by the VEW, and that the recommendation they receive are appropriate and are adopted. He reviews whether contact farmers have been correctly selected, farmers groups are properly delineated and all farmers are aware of the VEWs visit schedule and activities. The AES should also conduct some farm trials in farmers fields, participate in training sessions, and hold regularly scheduled review meeting with his VEWs. In addition to these specific tasks, the AES should take any steps that may be necessary to fulfill his main responsibility of helping the VEW increase his effectiveness as an extension worker.

B. Headquarters Staff Based In Pakistan

The main responsibility of the Pakistan based extension headquarters staff is to ensure the effective operation of the extension system throughout the target provinces in Afghanistan. Headquarters' attention should focus in particular on the quality of training and technical guidance received by all staff, coordination with and support from research (in Pakistan and elsewhere) and input and other agricultural support agencies; the promotion of broader agricultural and development activities stated in the goals and objectives of the ASSP/ADT Project; the quality of the service and its staff; exchanges of relevant experiences and ideas; monitoring and evaluation of extension activities; and the general administration of the extension service.

1. **The Deputy Director for Extension**, who reports to the Director of Agriculture, should be assisted by an extension coordinator and a team of senior subject matter specialists. He is responsible for planning, coordinating and monitoring of the entire extension service. He should be in charge of administration, including personnel management and finance; coordinates the program development of subject matter specialists and develop realistic work programs for extension staff.

2. **The Extension Coordinator** is responsible for all technical and professional aspects of the service. He supervises the ZEOs and is responsible for the execution and implementation of the work at all levels, internal monitoring of the system, and advising the Deputy Director for Extension of steps required to increase the impact of the extension service on the farmers it serves.

3. **The Zone Extension Officers** are the eyes and ears of the headquarters staff who are unable to go inside Afghanistan. He supervises the AESs and VEWs and is responsible for the smooth operation of all extension activities in his jurisdiction.

Guided by the known monthly visit programs of their AESs, the ZEO draw up regular schedules (quarterly or every two months) of their supervision field visits. Their visits should normally coincide with those of an AES, in the course of which he meets VEWs and most importantly farmers. During these visits, he determines the impact and effectiveness of extension activities and field staff. ZEO participate in all training session taking place in his jurisdiction. He must ensure that there is coordination between input and other agricultural support services and extension. The ZEO is supported by a team of SMSs.

4. **The Subject Matter Specialists** at headquarters who will include a training officer are responsible for developing in-service training programs in their fields of specialization for extension personnel; maintaining close contact with research workers in Pakistan and elsewhere and other organizations in Pakistan generating locally developed and applicable technologies for Afghanistan; and providing technical support to the extension officers and extension staff. They have an important role in developing and overseing farm trials and demonstration plots.

VII. RECOMMENDATIONS

The recommendations are directed toward strengthening the ADT Extension Service. These are:

1. The proposed reformed extension system must be implemented to strengthen the technology transfer capacity of the Project. The details of the system, including a province by province assessment, should be worked out during the 1991-1992 winter training (when all headquarters and field staff are present).

2. Production recommendations on priority crops/operations must be developed by headquarters staff and refined during training meetings with the participation of field staff.

3. Management should focus its efforts and means on the support of the Village Extension Worker so that he can perform his job in implementing the projects' activities adequately.

4. The technical competency of extension staff should be continuosly upgraded through regular forthnightly, monthly, seasonal, and specialized training.

5. A system of staff evaluation with a corresponding reward system must be instituted.

6. A systematic ordering of priorities between competing demands of different programs on field staff time and a systematic work planning for field staff must be developed.

7. All field extension agents should be provided with an appropriate vehicle at his disposal to cover his area quickly.

8. Communication between headquarters and field staff should be improved through more frequent and regular supervision/training visits and longer stays in the field by headquarters staff who has no restrictions to travel inside Afghanistan.

9. Linkages with other organizations doing development work in Afghanistan should be strengthened to maximize the impact of project activities.

10. Farmers should not be advised of production recommendations involving inputs unless those inputs are available to them.

11. Success stories from staff, farmer reaction to extension, general data on extensions' activities and achievements, should be documented and dissiminated. Suitable verified stories on these subjects should be publicized and made available to relevant audiences. DAI offices in Pakistan should be made showcases for extension activities since many people are unable to visit project sites in Afghanistan. Pictures, maps, and audio-visuals speak a thousand words and should be utilized in highlighting extension activies.

12. A constant review of the extension system should be made to ensure that staff, functions, and component actively contribute to efficient, field-based, farmer-responsive ADT Extension Service.

Annex 1

FARMER'S MAJOR PRODUCTION CONSTRAINTS *

(Identified and Ranked-Ordered by ADT Extension Agents)

Constraint # 1	Inadequate Production Inputs and Lack of Supporting Services.
Constraint # 2	Lack of Market for Farm Products.
Constraint # 3	Shortage of Labor.
Constraint # 4	Lack of Familiarity with New Technology/Inputs.
Constraint # 5	High Prices of Production Inputs.
Constraint # 6	War and Lack of Security.

*Source: Agricultural Extension Agents Survey, 1991 ADT Summer Training

Annex 2

SPECIFIC ACTIVITIES FOR ADT EXTENSION - FROM OCTOBER 1991 UNTIL THE END OF PROJECT IN DECEMBER 1992

(Developed by ADT Staff and Extension Consultant)

PROGRAMS

A. WHEAT

Target: 20,000 jeribs of certified seed multiplication; 125 jeribs of new seed multiplication; 25 jeribs of new seed demonstrations.

Headquarters Staff

1. Coordinate distribution of wheat seed for 1991. 550 tons of wheat seed purchased from Cargill will be divided between FAO and SCA for distribution in southern Afghanistan.(Done)

2. Procure 600 tons of wheat seeds for 1992. More areas will be added to the 1991 distribution list. (Done)

3. Coordinate with Swedish Committee the testing, production and distribution of turkish wheat variety Ataya in higher elevation areas in Afghanistan. (Mar'92)

4. Coordinate and plan the evaluation of Pirsabak 85 as a possible late planted winter or spring planted wheat in higher elevation areas of Afghanistan. Ghazni, Wardak, Paktika, and Logar are target areas for small test plantings. (Apr'92)

Field Staff

1. Distribute 1991 wheat seeds in southern Afghanistan to FAO and MCI. (Done)

2. Provide feedback to national staff on wheat seed needed for 1992. (Feb'92)

3. Extensionists in Ghazni, Wardak, Paktika, and Logar implement the evaluation of Pirsabak 85 as a possible late planted winter or spring planted wheat in higher elevation areas of Afghanistan. (Apr-Sep'92)

B. MAIZE

Target: 2,138 multiplication plots; 271 demonstration plots; 42 observation trials.

Headquarters Staff

1. Coordinate harvesting and analyze results of maize variety trials. Five mexican varieties were compared in eight locations. (Done)

2. Coordinate harvesting of first multiplication and set up second round of multiplication of new maize varieties. The mexican varieties were planted in Peshawar, Pirsabak (for low altitude comparisons) and Swat (for intermediate altitude comparisons). (Done)

   Three promising mexican varieties and two promising Pakistani varieties will be planted in Pakistan for seed increase.(Jan-Mar'92)

3. Procure 30 tons of Sunheri maize seeds (early yellow short season flint variety) available from Pakistan Seed Producers. (Mar'92)

4. Follow up 30 ton seed order with Ronco for 1992. (on-going)

5. Plan another maize-forage sorghum comparison tests. The first trial failed due to poor seed germination.

6. Monitor the performance of the Shaheen maize multiplication plots in Nangarhar and determine its suitability for seed distribution to farmers next year. (Feb'92)

Field Staff

1. Harvest demonstration and variety comparison plots. Provide data to headquarters staff for analysis. (Done)

2. Harvest first multiplication of new maize varieites (done) and set up second round of multiplication of new maize varieites. (Jan'92)

3. Harvest Shaheen maize seed multiplication plots in Nangarhar. If performance looks good, encourage farmers to distribute for seed next year. (Done)

C. RICE

Target: 92 multiplication plots; 10 demonstration plots.

Headquarters Staff

1. Evaluate performance of rice variety Basmati 385 in Nangarhar and Baghlan. Results indicate satisfactory performance. (Jan-Feb'92)

2. Develop a plan to increase the number of demonstrations and seed multiplication plots for Basmati 385. (Feb'92)

3. Order 10 tons of Basmati 385 seeds for demonstration and seed multiplication in 1992. (Done)

3. Develop a plan for comparison of other potential varieties on a limited scale.

Field Staff

1. Harvest rice variety Basmati 385 in Nangarhar and Baghlan. (Done)

2. Assist headquarters stafff for comparison of other potential rice varieties on a limited scale.

D. POTATO

Target: 150 seed selection (staking) demonstration plots; 30 demonstration plots of potato variety Diamant.

Headquarters Staff

1. Procure 3.5 tons of potato variety Diamant seed stocks.(Mar'92)

2. Determine areas of emphasis for 1992 potato program.(Feb'92)

3. Coordinate training program for headquarters staff and field staff on improved potato production for the winter training program. (Feb'92)

Field Staff

1. Assist headquarters staff in determining areas of emphasis for 1992 potato program. (Feb'92)

2. Implement program on potato seed selection and variety demonstration. (Apr-Aug'92)

E. HORTICULTURE (ORCHARDS, NURSERIES, VEGETABLES)

Target: Propagate 1,000,000 trees (fruit trees, fuelwood, hedgerows) in ADT nurseries for distribution to farmers; establish 300 new orchards; 3 bubble irrigation demonstrations.

Headquarters Staff

1. Procure services of an HVH consultant to assist the staff in evaluating the existing orchards and nurseries and making plans for the future. (Jan-Feb'92)

2. Determine the extent of further activities of apricot drying project. (Jan-Feb'92)

3. Develop program for grape/raisin. (Jan-Feb'92)

4. Define a realistic vegetable program for 1992. (Jan-Feb'92)

Field Staff

1. Assist national staff in planning horticultural programs by providing local knowledge working with farmers. (Jan-Feb'92)

2. Implement on-going programs. ('92)

F. ANIMAL HUSBANDRY

Target: Pilot program in poultry and a simple animal health program.

Headquarters Staff

1. Coordinate efforts in getting poultry into Afghanistan. Pilot testing of incubating eggs will initially be made in Peshawar before starting a program inside Afghanistan. (Jan'92)

2. Set up a simple animal health program. (Jan-Feb'92)

3. Provide animal nutrition information and training to extension agents. (Feb'92)

Field Staff

1. Provide local information to national staff on setting up an animal husbandry program. (Jan-Feb'92)

2. Obtain necessary information and training on animal husbandry from headquarter's animal husbandry specialist. (Jan-Feb'92)

G. MACHINERY

Target: Introduce 9 types of new machinery; 555 demonstrations.

Headquarters Staff

1. Coordinate movement of current machinery inventory into Afghanistan. (Mar-Jul'92)

2. Streamline in-country inventory. ('92)

3. Identify more specifically extension's role with machinery introduction. Determine which new machinery to demonstrate and make necessary purchases. (Feb'92)

Field Staff

1. Assist national staff in moving current inventory into Afghanistan. (Mar-Jul'92)

2. Assist in identifying local needs for machinery introduction and demonstration. (Feb'92)

H. PLANT PROTECTION

Headquarters Staff

1. Coordinate preparation of spray schedule for horticulture and field crops. (Jan-Feb'92)

2. Train extension agents in plant protection. (Jan-Feb'92)

Field Staff

1. Assist headquarters staff in preparation of spray schedule. (Jan-Feb'92)

2. Obtain necessary training in plant protection. (Jan-Feb'92)

I. EXTENSION PLANNING AND OPERATION

Target: Institute a training and visit system of agricultural extension that will strengthen the present extension service.

Headquarters Staff

1. Procure the services of Extension Consultant to assist staff define an agricultural extension system for war-affected Afghanistan. (Done)

2. With assistance of the Extension Consultant, set up ADT extension program goals and objectives on a national and local level. (Dec-Feb'92)

3. Consolidate existing extension data by province. (On-going)

4. With assistance of the Extension Consultant, refine current reporting system for extension agents. (Partially done; complete Feb'92)

5. Evaluate capabilities of existing PSA staff and integrate into the ADT extension system. (Dec'91)

Field Staff

1. Assist national staff in defining an extension system and setting up extension goals and objectives by providing local information on their clients (farmers) needs and local situation. (Jan-Feb'92)

2. Provide feedback to national staff on the current reporting systems as it affects them. (Feb'92; Aug'92)

J. EXTENSION TRAINING

Target: 160 people (ADT, PSA, PPA, traders, agricultural services) for 1992.

Headquarters Staff

1. Plan and coordinate orientation and training programs for all extension agents and staff. (Dec'91-Feb'92)

2. Coordinate extension training programs with PPA field staff. (Nov'91-Feb'92)

Field Staff

1. Provide feedback to national staff as to their perceived training needs so they can become a more effective extension agents. (Jan-Feb'92)

2. Participate in training programs. (Jan-Feb'92; Jul-Sep'92)

K. EXTENSION MATERIALS

Target: 27,000 extension posters; 7 new extension pamphlets; 11 farmers silk screens.

Headquarters Staff

1. Coordinate preparation of remaining silk screens for farmers emphasizing new and improved crop production techniques. ('92)

2. Coordinate publication of extension pamphlets on maize and potato (done); wheat, rice, machinery, and poultry ('92) for use by extension agents.

Field Staff

1. Distribute farmers silk screens to targetted groups of farmers. Monitor response of farmers to silk screens to determine improvements for the future. (Mar'92)

2. Suggest ways and means to headquarters staff on how to make the extension pamphlets more useful to them. (Feb'92; Aug'92)

L. COORDINATION WITH NGO'S

Headquarters Staff

1. Improve coordination with NGOS funded by USAID and other NGOs. (On-going)

2. Coordinate with other international agencies. Minutes from NGO coordinating body meetings are good sources of "lessons learned type" of information useful for program planning and operation. (On-going)

Field Staff

1. ADT extension agents in the field has to be aware of who is working in close proximity to them. (On-going)

2. Identify areas of possible cooperation/coordination in the local level (On-going)

Annex 3

IDENTIFIED NEEDS OF THE CURRENT ADT EXTENSION SYSTEM *

1. An improved single-line, direct line of administrative control and technical support.

2. A clearly defined goals and objectives for headquarters and local staff.

3. More emphasis on flexible short-term planning.

4. Continued emphasis on upwards communication.

5. Improved level of technical adequacy for identified field staff.

6. A routine scheduled supervision/training visit of headquarters staff.

7. A more adequate number of extension worker and logistic support.

8. More mobility.

9. Improved administrative support.

10. Better working conditions.

11. Stronger linkages with other bodies involved in development.

12. A system of routine communications between headquarters and field staff and vice versa.

13. A system of staff evaluation with a corresponding adequate reward system.

* Sources: a. Agricultural Extension Agents Survey, 1991 ADT Summer Training

b. Authors' observation and interviews

Annex 4

ADT EXTENSION STAFF
(as of December 15,1991)

Headquarters Staff Based In Pakistan

NAME	POSITION
Donald Oesligle	Agricultural Advisor
Arif Noori	Director of Agriculture
Abdullah Naik	Deputy Director for Extension
Dodullah	Extension Coordinator
Latifurahman	Extension Monitor

ADT Subject Matter Specialists

Abdul Wakil	Horticulture Specialist
Nabi Aslamy	Cereals Specialist
Saif	Machinery Specialist
Said Habib	Plant Protection Specialist
Sayar	Animal Husbandry Specialist
Qasim Yusufi	Training Specialist

Field Staff in Afghanistan

Wardak

Mohd Nasser	Agricultural Extension Supervisor
A. Habib	Village Extension Worker
Mohd Ghuse	Village Extension Worker
Saliman Shah	Village Extension Worker
Safullah	Village Extension Worker
Habiburahman	Village Extension Worker
Mohd Alem	Village Extension Worker

Paktika

A. Jabbar	Agricultural Extension Supervisor
Khandad	Village Extension Worker
Mirza Khan	Village Extension Worker

Kandahar

Said Mahmood	Agricultural Extension Supervisor
Hedayatullah	Village Extension Worker
Ikramudin	Village Extension Worker
Ikramudin	Village Extension Worker
A. Shakoor	Village Extension Worker
Wali Mohd	Agricultural Extension Supervisor
A. Moeen	Village Extension Worker
M. Aman	Village Extension Worker

Mohd Arif	Agricultural Extension Supervisor
Shir Ahmad	Village Extension Worker

PARWAN

Mohd Anwar	Agricultural Extension Supervisor
G. Nabi	Village Extension Worker

BAGHLAN

M. Sami	Agricultural Extension Supervisor
Delber Khan	Village Extension Worker
M. Nabi	Village Extension Worker

TAKHAR

Habibullah	Agricultural Extension Supervisor

NANGARHAR

M. Hassan	Agricultural Extension Supervisor
Selues	Village Extension Worker
Salim Gul	Village Extension Worker

HELMAND

Mohd Karim	Agricultural Extension Supervisor
Bashar Khan	Village Extension Worker
Mohd Masoom	Village Extension Worker
Said Ahmad	Village Extension Worker
Taza Gul	Village Extension Worker

LOGAR

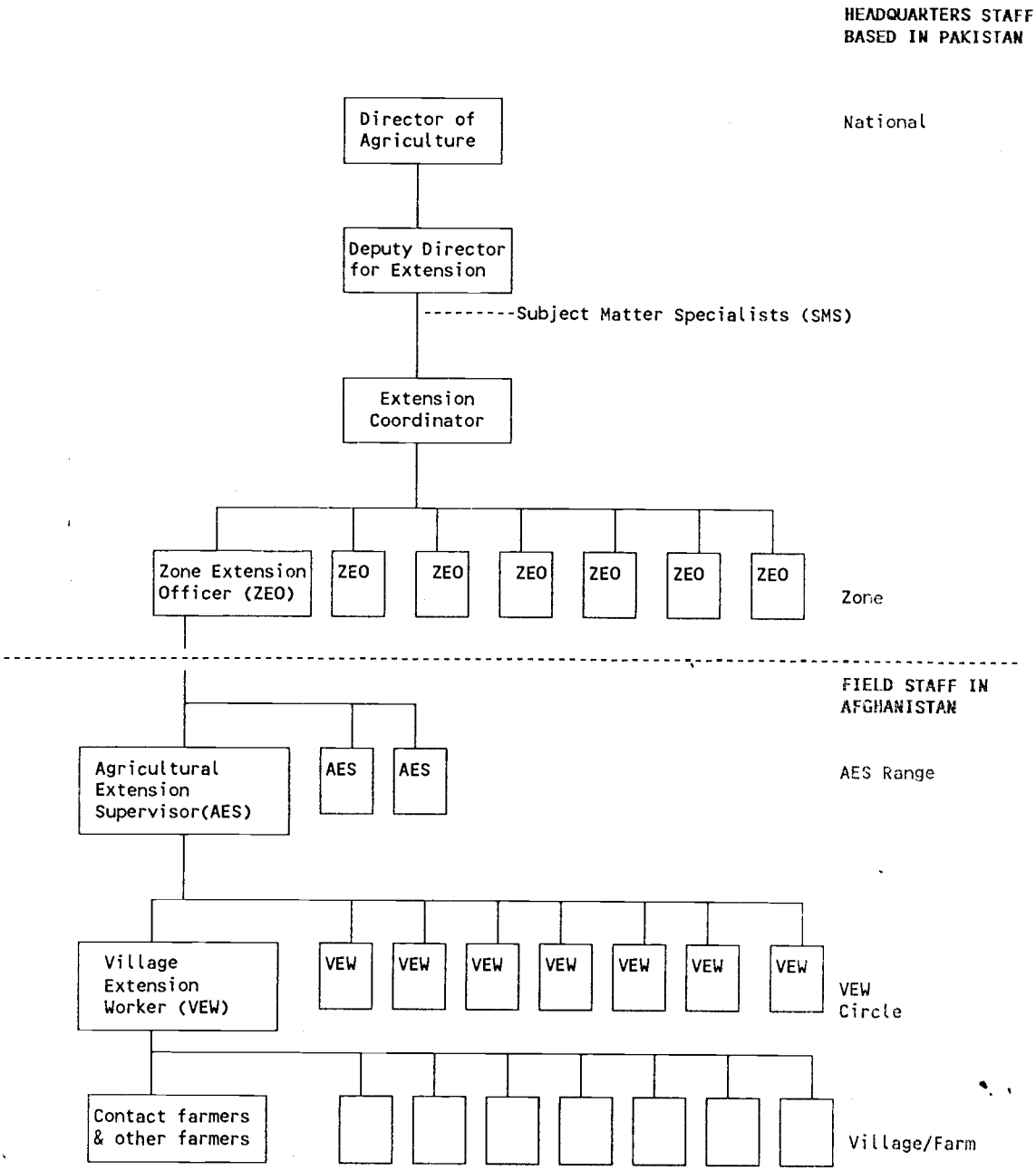
Wali Ahmad	Agricultural Extension Supervisor
M. Hashim	Village Extension Worker
Gulabuddin	Village Extension Worker
M. Tahir	Village Extension Worker
M. Daud	Village Extension Worker
Rafiullah	Village Extension Worker
Said Shah	Village Extension Worker
Bismullah	Village Extension Worker

GHAZNI

Payanda Mohd	Agricultural Extension Supervisor

Mohd Ismail	Village Extension Worker
Mohd Younus	Village Extension Worker
Eid Mohd	Village Extension Worker
G. Eshen	Agricultural Extension Supervisor
A. Jabar	Village Extension Worker
Amrudin	Village Extension Worker
Sultan Hassian	Village Extension Worker

ORGANIZATIONAL PATTERN OF THE TRAINING AND VISIT SYSTEM OF ADT AGRICULTURAL EXTENSION



Typical Forthnighly Visit and Training Timetable for a Village Extension Worker

FIRST WEEK							SECOND WEEK						
SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUES	WED	THU	FRI
1	2	MTG AES	3	4	EXT VIS	H	5	6	TRA SMS	7	8	EXT VIS	H

Explanation:

1-8 = number of farmer's group being visited.

MTG AES = meeting of AES with his VEWs.

EXT = Extra visits for checking farm trials, holding fields days.

VIS = making up visits missed because of holidays or illness, and so on, and for doing reporting work.

TRA = Forthnightly training session (of AES and VEW).

SMS conducted by SMSs.

H = Holiday

PROVINCES OF
AFGHANISTAN

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