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Reform Design and Implementation

وزارة الزراعة واستصلاح الأراضي  
الوكالة الأمريكية للتنمية الدولية  
مشروع إصلاح السياسات الزراعية  
وحدة تصميم وتنفيذ السياسات

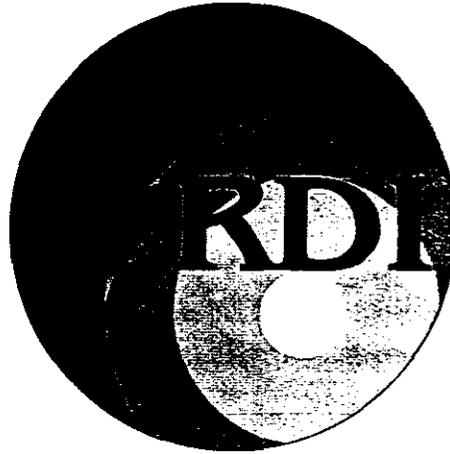
*Ministry of Agriculture and Land Reclamation*

## **AGRICULTURE POLICY REFORM PROGRAM**

*Reform Design and Implementation Unit (RDI)*

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*Reform Design and Implementation Unit*

*Development Alternatives Inc. Group: Office for Studies & Finance, National Consulting  
Firm Development Associates, Cargill Technical Services, The Services Group, Training  
Resources Group, Purdue Universities, University of Maryland*

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*Report No. 136*

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*Cotton Pest Management  
Services: Transferring  
Responsibilities from MALR  
to Farmers, Cooperatives and  
other Private Sector Providers*

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## **Executive Summary**

The Ministry of Agriculture and Land Reclamation (MALR) has been working successfully toward creating a more liberalized and open agricultural market in Egypt. This report describes the significant progress that has been achieved by MALR, in cooperation with GTZ/CSPP and APRP/RDI, in the liberalization of cotton pest management services and their transfer to the private sector.

Three important achievements have been accomplished in this area. The first was the issuance of Ministerial Decree #256 in 1999 which permits farmers to purchase pesticides from their village cooperative—in the cooperatives' capacity as a private sector service provider. The second was the implementation of a pilot project in several cotton growing villages in 1999 and 2000 which successfully showed that trained farmers, with extension staff available for consultation, were capable of making informed decisions as to whether, when and what to spray their cotton crop. Farmers also exercised choice as to where to obtain the pesticide goods and services: village cooperatives or private pesticide dealers. Third, in June 2001, H.E. the Minister of Agriculture and Land Reclamation issued a decree (no. 1796) permitting cotton farmers to obtain pesticides and production inputs and services needed for pest control from cooperatives, private sector traders and agricultural service companies that have been trained and licensed to pursue this activity. Also, in the coming three years, the MALR will be training farmers in all aspects of pest control so as to enable farmers to conduct pest control efficiently.

This report describes the rationale behind, and the advantages of, transferring pest management services and responsibility from the GOE to the private sector and farmers. The report details the activities that were conducted and the resulting policy reforms and other outcomes achieved in the liberalization of cotton pest management. The report also identifies the remaining steps that still need to be accomplished for complete liberalization.

## Introduction

The MALR has achieved significant progress in the liberalization of pest management services. With the exception of cotton, the private sector currently provides all pest management goods and services to farmers. With respect to cotton, the MALR, through its village level extension and pest control staff, makes most decisions and performs most tasks required in the integrated pest management regime on farmer's cotton fields.

In the past two years, however, the MALR began taking important steps towards liberalizing cotton pest management by transferring responsibilities to farmers, village cooperatives and other private sector providers. In 1999, Ministerial Decree #256 was issued which allowed for cooperatives to offer pest management services to farmers. In addition to the decree, the MALR, with GTZ/CSPP<sup>1</sup>, conducted a pilot project in eight villages in two governorates in 1999 in which farmers were trained in IPM and farmers were expected to conduct pest management themselves. During the 2000 cotton season, APRP/RDI joined this endeavor, expanding the pilot project to sixteen villages in four governorates. During this coming 2001 cotton season, the villages under this pilot program are expected to exceed 50.

Work has been on-going with the MALR<sup>2</sup>, GTZ/CSPP and APRP/RDI to introduce a training and licensing scheme for pesticide dealers and operators to improve performance standards. This work is in addition to introducing new procedures for the registration of pesticides and labeling of containers. These activities are designed to ensure proper usage and control of pesticides in order to protect both consumers and producers, and reduce the risk of environmental pollution.

Another effort by the government to support the liberalization of pest management services involves harmonizing pesticide registration procedures between MALR and the Ministry of Health. This is to prevent pesticide companies from registering agricultural pesticides as household pesticides through the Ministry of Health.

To further the liberalization of cotton pest management services, H.E. the Minister of Agriculture and Land Reclamation, Dr. Youssef Waly, issued a decree no. 1796 in June 2001 permitting cotton farmers to obtain pesticides, production inputs and services needed for pest control from cooperatives, private sector traders and agricultural service companies that have been trained and licensed to pursue this activity. Also, in the coming

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<sup>1</sup> GTZ Egyptian German Cotton Sector Promotion Program (CSPP) has been strongly supporting GOE/MALR in the formulation of a national strategy for liberalized pest management. GTZ/CSPP also provides extensive technical and financial assistance to train extension staff and farmers in modern IPM practices.

<sup>2</sup> This work is being done with Dr. Salwa Dogheim, Director of the Laboratory of Pesticide and Heavy Metal Residue Analysis in Food, MALR.

three years, the MALR will be training farmers in all aspects of pest control to enable farmers to conduct pest control efficiently.

Decree #256, Decree #1796, the pilot projects of 1999, 2000 and 2001 to liberalize cotton pest management services, along with efforts to improve pesticide registration, and licensing pesticide dealers, taken together, are clear indications of the GOE's intent to proceed speedily towards full liberalization of cotton pest management services.

### **The Vision of Full Liberalization**

The long-term objective of this on-going work is to establish a market driven industry in which farmers, operating as informed free agents, cooperatives and other private sector players are responsible for cotton pest management. The MALR will act as a regulating and licensing body. The vision of full liberalization has been defined as follows:

- Farmers will implement all aspects of their own cotton pest management.
- Farmers will be able to choose from a range of service providers to obtain advice, support, pesticides, application equipment, and spraying services
- Private dealers, cooperatives, local small service companies, and cotton companies will provide those services to which they are best suited at competitive prices.
- MALR will regulate to protect consumers and producers and reduce possible environmental pollution and provide advice.
- Extension agents will provide farmers with continuous technical support and advice throughout the season on all aspects of cotton production.

In full liberalization, farmers, the MALR and the private sector will have new roles to play. Farmers will be responsible for following MALR pest management recommendations; pest scouting; egg mass collection; spray decisions; pesticide selection; pesticide application; obtaining necessary pesticides and sprayers and all costs associated with pest management.

At the same time, MALR will be responsible for regulating this industry. This includes ensuring that all pesticides are properly registered. In addition, the MALR will certify pesticide dealers and operators; issue pest management recommendations; provide advice and support to farmers through Farmer Learning Groups; monitor pesticide use and quality; and supervise pest management practices that can be implemented only on a wide scale.

The private sector (consisting mainly of dealers, cooperatives, local service companies and cotton companies) will be responsible for providing advice and support to farmers on the basis of MALR pest management recommendations, provision of pesticides, sprayers, spraying services and credit.

Extension agents will provide technical support and inform farmers of new technologies in pest control. Also, extension agents will convince farmers to work together and group their land areas in pest control units. They will conduct monitoring and follow-up work in farmers' fields and perform bollworm scouting, as well as inform farmers of threshold levels and advise them whether or not to take action.

The advantages of liberalizing cotton pest management are:

- Encourage the growth of a pest management service industry, which is vital for the future of the agricultural sector.
- Eliminate more than LE 125 million in subsidies that the GOE provides farmers for cotton pest control.
- Encourage a more judicious use of pesticides as farmers have to pay full price. Reducing pesticide applications protects people's health and the environment.
- Enhance the role of the village cooperatives as private sector service providers.
- Permit farmers to operate as free agents, taking full control of their crop and their fields and making choices in all aspects of cotton production.
- Permit the GOE to assume an exclusive role to inspect, monitor, license and provide extension services.

### **The Approach to Full Liberalization**

The purpose of APRP is to assist the GOE to design and adopt policies which result in a market-driven and private sector-led agricultural economy. As part of the program, the GOE and USAID agree on policy benchmarks, that is, policy reforms which both parties deem as important and necessary in the process of liberalization and privatization. With regard to liberalizing cotton pest management services, the policy benchmark in the Tranche IV states:

*The GOE will allow the private sector to provide all cotton pest management services by December 2000. The MALR will be responsible only for inspection and quality control, licensing and provision of extension advisory services.*

#### ***Verification Indicators:***

- Completion of a pilot program to allow private sector provision of pest management services for cotton in two governorates for the 1999 cotton-growing season (12 2000).

- A decree allowing the private sector to provide all goods and services required for pest management in cotton. Implementation will be over a three-year period (12/2000).

To achieve the above benchmark, MALR, APRP/RDI and GTZ/CSPP's immediate objective was to implement a pilot project in which farmers would be responsible for pest management with cooperatives and private traders offering pesticides, sprayers, credit and any support needed to perform effective pest control. The program was implemented in sixteen villages in four governorates (see **Appendix I** for list of villages). Most cotton farmers in these villages attended farmer learning group meetings in the field and were trained in IPM by the GTZ/CSPP program.

Prior to this benchmark, the GOE had, in 1999, issued Decree #256 (**Appendix II**), which called for cooperatives to offer cotton pest management services with pesticides supplied, and bought by tender, from MALR. The decree allows farmers to purchase pesticides from their village cooperative-in the cooperatives' capacity as a private sector service provider. This decree is an important first step towards full liberalization.

Also, In 1999, the GTZ/CSPP IPM Farmer Learning Group Program was initiated. The program trained 14,850 farmers in 1999 and 39,150 farmers in 2000 respectively. Farmers were trained in principles of pest management and in cotton pest management recommendations. The program also sought to introduce participatory extension methods. In the first year, farmers received education in cotton pest management, the reasons for the recommendations and the principles underlying IPM. In the second year, they were prepared to undertake their own pest management, with the support of extension officers and the farmer learning groups, during which they gain more practical knowledge of IPM. The purpose of this training was to prepare farmers for their new role in a liberalized economy: informed and well-trained businessmen operating as free agents and exercising choice.

A pilot program was initiated and has been on-going for the past two cotton seasons and will continue in 2001. The purpose of the pilot program in both seasons were to shift away pest management activities away from MALR and place them in the hands of informed cotton farmers, private dealers, and village cooperatives assuming their new role as private sector service providers.

All farmers growing cotton in the villages were required to participate in the pilot project. In close collaboration with the well-trained extension agents, who will only advise farmers, farmers either individually or in groups were required to perform cotton pest management themselves. All activities regarding the control of cotton leaf worm and sucking pests were performed by farmers. Bollworm collection to identify thresholds were be carried out by extension agents. If spraying was required for bollworm, extension agents informed farmers who took charge of controlling this pest in their fields. The MALR ensured the availability of all types of sprayers and pesticides in the village

cooperatives. MALR also ensured that an adequate number of extension officers were available who have both the proper training and the transportation facilities to make their rounds of farmers' fields. When spraying was required, farmers/farmer groups rented sprayers (or used their own) from the village cooperative or private sector providers. Also, a whole range of pesticides was made available at the cooperative, which farmers paid for in cash or borrowed against payment after harvest.

During the initial workshops, the program focused on ensuring that village cooperatives were able to supply sufficient amounts of chemical and sprayers to cotton farmers. It was also to ensure that the technical portion of the program, that is, the actual activities involved in pest management, would be done in the absence of direct government intervention yet safeguarded against serious pest outbreaks.

Farmers were thus given freedom to choose the source of their pest management needs on their cotton crop. To summarize, these sources were of two types:

**Village cooperatives:** These are private sector associations, representing the common interests of their members—the farmers. They provide production and input and output marketing services to their members.

Most farmers in the pilot villages purchased their pesticides from the village cooperative because these cooperatives:

- ❑ Stocked good quality pesticides;
- ❑ Provided competitively-priced pesticide products and services;
- ❑ Were ready to provide credit to farmers.

**Pesticide dealers:** private businesses, which provide pesticide services to farmers for profit.

Farmers in the pilot program dealt extensively with private traders in their villages. Farmers in all areas reported that they purchased pesticides from the private traders, especially in the following villages 1) *El-Khadimiyah* village, Kafr El-Sheikh; 2) *Aga* village, Dakahlia; 3) *El-Iraqiyah* village in Menoufiyah. Moreover, farmers also rented or bought pesticide sprayers from private traders.

At present APRP and GTZ are assisting private sector dealers to improve their ability to compete with the cooperative sector. Two activities are focused on this goal. The first is to help private sector companies to form more powerful associations to improve the ability of individual companies to compete. The second activity is to assist with improving the licensing and regulatory environment in which these companies operate.

Eventually, what is sought from this program is that the private sector, consisting of dealers, cooperatives, local service companies and cotton companies will compete in a

free and fair environment to provide advice and support to farmers, provide pesticides, sprayers, sprayer services, credit and assistance with obtaining inputs. This will enable farmers to obtain the best possible products at a fair price, while encouraging the development of rural agricultural organizations.

### **Program Implementation:**

The 2000 pilot program relied heavily on public awareness, delivering messages through workshops, meetings and informal gatherings and follow-up and monitoring. Most of the work revolved around identifying stakeholders, explaining the program's objectives and then seeking consensus at all levels. Efforts included countless formal and informal meetings with senior government officials in Cairo, and MALR staff at the governorate, district and village level, including the farmers themselves. Workshops were held in Cairo and the governorates; working documents, reports and other materials were prepared; review workshops to refresh implementers of the objectives and resolve any impeding issues were held; monitoring and evaluation during the cotton season was conducted; final project evaluation and an end-of-season workshop to discuss outcomes and plans for expansion were held. All of the documents referred to above can be found in numbered appendices at the end of this report (see **Appendix III** for pilot program implementation details).

The success of this program has been partially the result of close collaboration between many people and stakeholders at different levels and across geographical space: farmers, cooperative leaders, village, district and governorate staff, senior government officials, and APRP and GTZ technical and policy experts, as well as the private sector.

Team members included Dr. Bakir Oteifa, Advisor to HE the Minister; Eng. Reda Ismail, Undersecretary, Central Administration for Extension, MALR; Dr. Khalil Malki, Undersecretary, Central Administration for Pest Control, MALR; Dr. Said Abul Azeem, General Director for Pest Control, MALR, Mr. Muhammad Raslan, responsible for the cotton crop in Lower Egypt and Undersecretary for Agriculture in Menofiya Governorate; Directors of pest control, extension and cooperatives in the governorates were involved, as were the undersecretaries of the four governorates. Mr. Tony Treen (GTZ/CSPP, Egyptian German Cotton Sector Promotion Program); Eng. Tarek Fahmi (GTZ/CSPP); Eng. Mahmoud Nour, APRP Coordinator; Eng. Samir Shehata (RDI/APRP); Dr. Jane Gleason (RDI/APRP) and Dr. Lamia El-Fattal (RDI/APRP).

### **Ministerial Decree # 1796**

Several informal and formal meetings were held with the senior government officials regarding the issuance of H.E. the Minister's approval allowing the private sector to provide goods and services required for pest management in cotton. On June 13, 2001.

the Minister issued the Ministerial Decree # 1796 which contains the following instructions:

1. Cotton farmers have the right to obtain pesticides and production inputs and services needed for cotton pest control from agricultural cooperatives, private sector traders and agricultural service companies that have been trained and licensed to pursue this activity. The farmers are to bear the related expenses under the technical supervision of the MALR.
2. The MALR is to provide, in a three-year period, training and extension on pest scouting, determining the threshold level and treatment in a way that enables farmers to handle cotton pest control efficiently.
3. The Central Administration for Pest Control will be responsible to issue decrees and instructions regulating training and giving licenses mentioned in Article (2) above.

These Ministerial Decree meets benchmark D6 which allows for the private sector to provide all goods and services required for pest management in cotton and are currently being disseminated in the involved parties.

## Conclusions

- GOE/MALR currently owns and manages the liberalization of cotton pest management program and is seeking ways to expand it and make it universal in all cotton growing governorates.
- Farmers now have the choice of obtaining pest management services from the several private providers: private traders and village cooperatives.
- The transition to full liberalization can occur in three years if farmers are properly trained and public awareness is successfully implemented.
- Implementation has been going smoothly in the pilot villages, and in the right direction but efforts are still needed to ensure smooth implementation in the next few years to ensure success.
- Governorate staff are ready to implement pest management services program in more districts and villages.
- Farmers response to the program has been mostly positive and they are eager to continue in the coming years.
- Technical assistance will be extended from MALR agencies and GTZ to the governorates where the pilot program will be on-going next year.
- Implementation support will be extended by MALR, cooperatives and APRP/RDI.

# Appendices

**Appendix I: Participating Villages in 2000 Cotton Season:**

The following villages participated in the pilot program of 2000 cotton season:

**Menoufiyah Governorate:**

*Birkat el-Sabe District:*

- Mit Faris Village
- Al-Ghuri Village

*Al-Shuhada District:*

- Al-Iraqia Village
- Salamoun Bahri Village

**Behira Governorate:**

*Damanhour District:*

- Dasounis Village
- Tarabamba Village
- Durbouk Village
- Sharnoub Village

**Dakahlia Governorate:**

*Simbalaween District:*

- Shabrahour Village
- Al-Orman Village

*Aga District:*

- Munshiyat Al-Ikhwa Village
- Sabakha Village

**Kafr El-Sheikh Governorate:**

*Kafr El-Sheikh District:*

- al-Khadimiyah Village

*Qilin District:*

- Al-Minshiyah Village

*Desouk District:*

- Al-Zawamil Village

*Biyala District:*

- Al-Arnab Village

**Appendix II: Ministerial Decree #256 of 1999:**

**Deputy Prime Minister and the Minister of Agriculture and Land Reclamation, after review of Agricultural Law #53 of 1966 and amended laws, and the Agricultural Cooperative Law #122 of 1980 and amended laws and memo submitted by the Agricultural Cooperative Central Administration dated 27/2/1999**

**Decided:**

**Article 1: The Agricultural Cooperative Societies are will carry out integrated pest control operations for winter crops, weed control and rodents control under complete supervision of MALR, and PBDAC will finance the Cooperative Societies unable to finance themselves, and the said societies will collect the money guaranteed by the General Cooperative Society.**

**Article 2: All technical works will be the responsibility of the Ministry of Agriculture in the Governorates, and the Central Administration for Pest Control will issue the detailed instructions in this regard.**

**Article 3: The Central Administration for Pest Control will provide the pesticides alternatives and some of the cotton pesticides in the Cooperative Societies this year, and the Cooperative Societies will provide the other pesticides to control the pests in other field crops and fruits and vegetable crops according to the technical recommendations under the supervision of MALR.**

**Article 4: Formation of a Committee at the Governorate level chaired by the Director of Agriculture and the membership of:**

- Agricultural Engineer/ Director General of Agricultural Affairs,**
- Agricultural Engineer/ Director General of Cooperatives,**
- Agricultural Engineer/ Director General of Agricultural Affairs,**
- Agricultural Engineer/ Director General of Pest Control, and**
- Agricultural Engineer/Director General of Agricultural Extension.**

**Article 5: All concerned departments will be required to carry out their responsibilities accordingly.**

### □ Appendix III: The 2000 Pilot Program

#### *Working Documents:*

At the start of the program, the Pest Management Services team (CAPC-MALR, APRP and GTZ/CSPP) prepared three draft documents:

- **Program objectives:** to perform effective and economic pest control according to the MALR's IPM program and expand liberalization by allowing farmers to choose from a range of service providers. The objectives were also to increase the understanding and expertise of staff working in extension, cooperatives, farmers and the private sector, in pest management services liberalization and its advantages.
- **Working principles for season 2000:** This document detailed the procedures that were to be followed in the pilot villages and defined the role of farmers, cooperatives and extension staff in the program. The operating principles included some key important elements. All farmers growing cotton in the villages will need to participate in the pilot project. In close collaboration with the well-trained extension agents, who will only advise farmers, farmers either individually or in groups will be required to perform cotton pest management themselves. All activities regarding the control of cotton leaf worm and sucking pests will be performed by farmers. Bollworm collection to identify thresholds will be carried out by extension agents. If spraying is required for bollworm, extension agents will inform farmers who will take charge of controlling this pest in their fields. The MALR will be responsible for ensuring that all types of sprayers and pesticides will be made available in the cooperatives of the pilot villages. MALR will also ensure that an adequate number of extension officers will be available who have both the proper training and the transportation facilities to make their rounds of farmers' fields. When spraying is required, farmers/farmer groups can rent sprayers (or use their own) from the village cooperative or private sector providers. Also, a whole range of pesticides will be made available at the cooperative which farmers can pay for in cash or borrow against payment after harvest.
- **Program workplan:** detailed descriptions of the tasks to be accomplished in the months to follow.

Several formal and informal meetings were held in which these draft documents were revised and then approved for discussion at a workshop.

*First Liberalization of Cotton Pest Management Workshop Held in Cairo on February 3, 2000:*

Dr. Bakir Oteifa, senior advisor on pest management to H.E. the Minister of MALR and GTZ/CSPP program coordinator, senior pest control and extension officials from Cairo; governorate undersecretaries; directors of agriculture, pest control and extension in each of the four governorates attended. After presentations reviewing the 1999 program, Dr. Khalil Malki presented the objectives of the 2000 program and the key operating principles. The participants were then requested to discuss and exchange reactions to the key principles in governorate working groups and agree on a district work plan.

Several important points were brought up during this workshop. First, participants were eager that the pilot program continue for the 2000 season and be expanded to include a larger number of villages provided that:

- ◆ The exact responsibilities of farmers, extension staff, cooperatives in pest management in the pilot villages are made clearer.
- ◆ Additional incentives are made available to extension officers.
- ◆ Pesticides (quantity and quality) and all types sprayers are ready available at cooperatives.
- ◆ Transportation means and budget are made available to extension staff.

#### ***MALR Pest Management Services Governorate Workshops:***

Upon the completion of the Cairo workshop in which the objectives, working principles and the workplan were agreed upon, four governorate workshops in Minoufiyah, Beheira, Dakahliya and Kafr El-Sheikh were held on Feb. 10, 14, 15 and 17, 2000 respectively. The purpose of these workshops was to inform governorate-level officials and village staff about the program's objectives and receive their input regarding the operating principles, and arrange for village meetings. Governorate undersecretaries, Directors of Agriculture, Pest Control, Cooperatives, as well as extension officers and village staff attended the meetings, along with RDI and GTZ/CSPP staff. Dr. Saeed Abdul Azeem, Eng. Muhammad Raslan, Undersecretary for Cotton Production in Lower Egypt, and Eng. Samir Shehata of RDI and the undersecretaries for each governorate presented the program objectives and led the discussions. The workshops provided the opportunity for governorate staff to discuss issues in working groups, present their input on the key principles, and help organize the village workshops.

#### ***MALR Pest Management Services Village Workshops:***

District agricultural and village staff held farmer meetings from February 24<sup>th</sup> through March 8<sup>th</sup> 2000 in the sixteen villages of the pilot project. GTZ/CSPP and APRP staff also attended. The purpose of these meetings was to present to potential cotton growing farmers the objectives of the program, create public awareness, and define farmers' roles vis-a-vis MALR and cooperatives during the season in the pilot villages. Most meetings were held at the village cooperative and between 30 to 150 farmers

attended each meeting. Following a presentation by the Director of Pest Control (often with the support of Director of Cooperatives) who discussed the program's objectives, operating principles, and the roles and responsibilities of MALR, farmers and cooperatives, the meetings were open for discussion. Farmers were encouraged to present their views and opinions and then choose whether their village would be interested in joining the program.

### ***MALR Pest Management Governorate Review Workshops:***

In addition to conducting follow-up visits to the pilot villages before and during the cotton season, the team also held four review workshops in the governorates in mid-May, 2000. Attending the workshop were Eng. Reda Ismail, Dr. Khalil Malki and Eng. Muhammad Raslan, as well as the undersecretaries for agriculture in the four governorates, district staff, village staff, and cooperative leaders.

The goals of these review workshops were to:

- To assess progress to date in the pest management services program.
- Review the roles and responsibilities of each of farmers, cooperatives and extension staff.
- To obtain village-level feedback to ensure that issues are resolved immediately.

About 80-100 people attended each workshop. Most attendees understood the goals of the program. For the most part, farmers were finding the pesticides and sprayers they needed from the cooperatives. Cooperatives, in all governorates, except for Behira, allowed farmers deferred payment (Behira governorate cooperatives later were able to provide credit at the latter stages of the cotton crop). Extension staff are still making important decisions for farmers with respect to spraying. Extension staff continued to ask for incentives and transportation means as these were promised, but not delivered to them yet. KKKKKKK

From May until September's harvest date, GTZ/CSPP staff continued to monitor the project throughout the growing season by travelling regularly to the pilot villages and talking to farmers and governorate staff. Thus, the Pest Management team was continuously informed of how the program was going and whether/where things were going as planned.

### ***Program Evaluation:***

In September 2000, an evaluation team from the Economic Affairs Sector of the MALR visited the villages of the program to receive feedback from farmers. GTZ/CSPP staff and APRP staff attended these visits. Using rapid appraisal techniques to receive information from the farmers, the evaluation showed that farmers from the pilot villages on the whole, understood the program and approved its objectives.

On October 17, 2000, the evaluation team briefed GTZ/CSPP and APRP-RDI on the results of their evaluation. Their findings were as follows:

- Farmers were more hospitable and trusting of the program than the previous year.
- Pesticides, sprayers, and for the most part, credit (deferred payment), were available at the Cooperatives.
- Cooperatives offered better quality pesticides and at lower cost than private dealers.

- Farmers understood the program and approved of it.
- Few farmers bought any pesticides from private sector and did so only when the pesticide in question was not available at the Cooperative.
- In some cases, government still performed some pest management practices on cotton, such as bollworm and spraying.
- Farmers understood IPM and the liberalization program in various degrees.
- Bollworm control remained the most problematic for farmers.
- Extension staff had more time to assist farmers and farmers showed up to the farmer learning groups when they were held at appropriate times.
- The scouting booklet needed simplification and more training for farmers was needed to use the scouting booklet properly.

### *Final 2000 Pilot Program Workshop:*

The evaluation team presented their findings on November 18 at a workshop organized by GTZ-CSPP and APRP-RDI. The purpose of this workshop was to review the pest management services 2000 program; present the results of the evaluation team; present the vision of full liberalization of pest management services which is expected to be implemented in the near future; and identify remaining steps and time-scale for full liberalization of cotton pest management. The private sector companies were invited to attend this workshop.

Several important findings emerged from this workshop. First, all the parties involved: farmers, cooperatives, village, district and governorate staff, as well as senior government staff from the MARL in Cairo felt that the pilot program went well. Also, though farmers still needed additional training in bollworm pest control, most participants felt that farmers were capable of performing almost all other pest control measures themselves. The participants also felt that in the next three years, with adequate training and public awareness, the program can be expanded to include all cotton growing villages in their governorates.

Discussions on currently being held regarding the expansion of the program for 2001 cotton season, such as the schedule of the meetings to be held in the 51 villages in the pilot program expansion phase.

وزارة الزراعة وإستصلاح الأراضي

برنامج تحرير مكافحة آفات القطن  
لموسم ٢٠٠١

مشروع إصلاح السياسات الزراعية

APRP

البرنامج المصري الألماني لتطوير قطاع القطن

GTZ - CSPP

## البرنامج التجريبي للقرى المختارة عام ٢٠٠١

### الأهداف

- تأهيل المزارعين و بعض الخريجين و أجهزة وزارة الزراعة و الجمعيات التعاونية و تجار مستلزمات الإنتاج و الخدمات بالقرية لتحمل مسئولياتهم الجديدة في مكافحة آفات القطن خلال ٣ سنوات.
- التوسع في برنامج تحرير مكافحة آفات القطن في قرى مختارة من أربع محافظات حتى يستطيع المزارعون اختيار من يقدم لهم خدمات مكافحة آفات القطن.
- البناء على النجاحات و التغلب على المشكلات التي واجهت القرى التجريبية في المحافظات الأربعة أعوام ١٩٩٩ و ٢٠٠٠
- تعميق الخبرة المطلوبة للعاملين بإدارة المركزية لمكافحة الآفات و الإدارة المركزية للإرشاد الزراعي و الجمعيات التعاونية و القطاع الخاص وذلك من اجل توفير خدمات مكافحة آفات القطن.

## برنامج تحرير خدمات مكافحة آفات القطن

### الحلقة النقاشية لتخطيط الأنشطة على مستوى المحافظات (١٠ صباحا - ١٢ ظهرا)

#### الأهداف:

- مراجعة صعوبات التنفيذ في العام الماضي.
- الوصول إلى اتفاق حول كيفية التغلب على هذه الصعوبات.
- الوصول إلى اتفاق بشأن الإطار الزمني (المواعيد والبرنامج) نورشة العمل بالقرى المختارة.
- تحديد مسئوليات التنفيذ على مستوى القرى.

#### المشاركون:

المستوي المركزي بوزارة الزراعة واستصلاح الأراضي ومسؤولي الزراعة بالمحافظة والمراكز.

### ندوة توجيه التوسع في البرنامج (١٢ ظهرا - ٢ عصرا)

#### الأهداف:

- عرض أهداف برنامج تحرير خدمات مكافحة آفات القطن والمبادئ العمية والأدوار والمسئوليات على القيادات التعاونية وتجار القطاع الخاص والمرشدين الزراعيين.
- مراجعة الإنجازات التي تحققت في البرنامج التجريبي خلال عام ٢٠٠٠.
- طرح ما اتفق عليه بشأن كيفية التغلب على صعوبات التنفيذ لعام ٢٠٠١.
- طرح الإطار الزمني - بما في ذلك المواعيد والبرنامج - للحلقات النقاشية على مستوى القرى وجدول أعمالها.

#### المشاركون:

القيادات التعاونية - تجار القطاع الخاص - المرشدين الزراعيين بالقرى التجريبية القائمة والجديدة ضمن برنامج توسع لعام ٢٠٠١ ومسؤولو وزارة الزراعة على المستوى المركزي والمحافظة والمراكز.

## مبادئ تنفيذ برنامج مكافحة آفات القطن<sup>(١)</sup>

- (١) لمزارعي القطن الحق في الحصول على المبيدات ومستلزمات الإنتاج والخدمات اللازمة لمكافحة آفات القطن من الجمعيات التعاونية الزراعية وتجار القطاع الخاص وشركات الخدمات الزراعية الذين تم تدريبهم والترخيص لهم بمزاولة هذا النشاط ، مع تحمّل المزارع بالتكلفة المرتبطة بذلك تحت الإشراف الفني لوزارة الزراعة.
- (٢) تقوم الوزارة خلال ثلاث سنوات بتوفير التدريب والإرشاد على عمليات العد وتحديد الحد الحرج والعلاجات على نحو يجعل المزارع قادر على تولى مسئولية مكافحة آفات القطن بكفاءة.
- (٣) سيتم اختيار قرى بالكامل وبياناتي فإن جميع زراع القطن بها سينضمون لهذا المشروع.
- (٤) سيتم تقسيم زراع القطن إلى مجموعات بالتجاور لإجراء عمليات العد والعلاجات مع المشرفين بهذه القرى المختارة.
- (٥) إذا تعذر على زراع القطن دفع ثمن المبيدات نقدا ، فيمكنهم الحصول عليها من الجمعيات بالأجل على أن يتم تحصيلها بمعرفة بنك التنمية والائتمان الزراعي أسوة ببقية القرى خارج المشروع.
- (٦) سيقدّم زراع القطن في المشروع بمقاومة ومكافحة الآفات الثاقبة الماصة ودودة ورق القطن بمعرفته ولن تقوم وزارة الزراعة بإجراء أي علاجات بالنسبة لهذه الآفات بمعرفتها.

<sup>(١)</sup> مع إيراد كمل برنامج مكافحة أعد معرفة وزارة الزراعة وأن مبيدات القطن غير مصرح . مستخدم في أي محصول آخر.

- (٧) سيتم تجميع عينات ديدان اللوز وفحصها وتحديد نسب الإصابة بمعرفة جهاز وزارة الزراعة ، ويقوم الزراع بإجراء علاجات ديدان اللوز على ضوء نتيجة الفحوص وتوصيات جهاز الوزارة.
- (٨) جهاز العاملين فى المشروع فى هذه القرى مسئول عن إعطاء النصيح والإرشاد لإستخدام برنامج المكافحة المعد بمعرفة الوزارة.
- (٩) لن يحتاج الزراع فى قرى المشروع إلى موافقة مسبقة للحصول على المبيدات اللازمة لمعالجة القطن ، ولكن جهاز وزارة الزراعة مسئول عن التأكد أن هذه المبيدات استخدمت فى محصول القطن فقط ولم تستخدم فى أى محصول آخر.
- (١٠) يتم تقدير احتياجات هذه القرى فى المبيدات وتوفيرها فى مخازن الجمعيات قبل الموسم لمواجهة الاحتياجات فى الوقت المناسب.
- (١١) يتم تقدير احتياجات هذه القرى من الآت الرش الصغيرة أو الكبيرة بما يغطى المساحات ومجموعات المزارعين المنظمة داخل هذه القرى.
- (١٢) ستسمح الجمعيات التعاونية للزراع بإستأجار الآت الرش من مقدمي خدمات المكافحة لإستخدامها فى المبيدات المشتراه بمعرفةهم.
- (١٣) سيتم توفير عدد كاف من العاملين فى جهاز الإرشاد ببرنامج الـ IPM للقرى الداخلة فى المشروع.
- (١٤) جهاز القرية المشتركة فى المشروع سيكون متفرغ طوال الوقت لأعمال المشروع ولن يكف ذلك بأى أعمال أخرى.
- (١٥) ستقوم الوزارة بتدبير وسائل مواصلات طوال الوقت لأعمال المشروع لجهاز الإشراف على مستوى المحافظة والمراكز.
- (١٦) الجهاز العامل للمشروع بالحقول سيتم حصولهم على نفس الحوافز والمكافآت والبدلات مثل زملائهم العاملين فى محصول القطن خارج المشروع.

## تحرير خدمات مكافحة آفات القطن

### الأدواز والمسئوليات الجديدة

#### دور المزارعين:

- ♦ حرية اتخاذ قرار الرش عن عمه. وفي حالة اتخاذ قرار بالرش يختار المزارع المبيد ويشتريه من المصدر الذي يريد ويحدد ما إذا كان سيستخدم أدوات الرش الخاصة به أو يستأجر معدات رش من الجمعية الزراعية أو غيرها.
- ♦ تطبيق كل جوانب المكافحة الحقلية للأفات بما في ذلك اكتشاف الإصابة وجمع النطع وأسلوب المعالجة - باستثناء جمع النوز وفحصه لتحديد الحرج للإصابة بينان النوز الذي تقوم به وزارة الزراعة ويتم إبلاغ المزارعين لاتخاذ قرار الرش.
- ♦ حضور حلقات التدريب ومجموعات المناقشة حتى يظل على اطلاع على كافة الجوانب الفنية للمكافحة المتكاملة.
- ♦ تحمّل تكاليف عمليات المكافحة في حقله.
- ♦ تشجيع المنتجين ذوي الأراضي المتجاورة على تجميع أراضيهم المزروعة قطناً في وحدة واحدة للمكافحة المتكاملة من أجل خفض التكاليف وزيادة فاعلية المكافحة المتكاملة.
- ♦ اتباع التوصيات الفنية للمكافحة المتكاملة واستخدام المبيدات.

#### دور الجمعيات التعاونية الزراعية / القطاع الخاص:

- ♦ التأكد من توفر المستلزمات والخدمات المطلوبة لمنتجات القطن في القرى التي تخدمها.
- ♦ تقديم خدمات الائتمان للمزارعين الذين يطلبونها لشراء المبيدات واستئجار المعدات وتغطية تكاليف العمل للمقاومة اليدوية في نسوية حسب ما في نهاية الموسم.
- ♦ توفير البيانات عن المساحة المزروعة قطناً في زمام القرية.
- ♦ توفير وضمان سلامة ظروف التخزين للمبيدات والرشاشات.
- ♦ ضمان توفر كل المنتجات ومعدات الرش بكافة أنواعها.
- ♦ صيانة الرشاشات وضمان توفير قطع الغيار.
- ♦ التأكد من استخدام السليم لمبيدات القطن.

#### دور وزارة الزراعة واستصلاح الأراضي:

- ♦ توفير الإطار التشريعي والتنظيمي.
- ♦ إصدار التوصيات الفنية لاستراتيجيات مكافحة الآفات.
- ♦ المتابعة والتفتيش على سير عمليات مكافحة الآفات.
- ♦ إعداد برامج تدريبية للمزارعين على عمليات الفحص وتحديد الحد الحرج والعلاجات على نحو يجعل المزارع قادرًا على تولى مسؤولية مكافحة آفات القطن بكفاءة.
- ♦ إصدار الإدارة المركزية للمكافحة القرارات والتعليمات المنظمة للتدريب وإصدار التراخيص لتجار المبيدات.

#### دور المرشدين الزراعيين:

- ♦ توفير المساعدة الفنية والنصح خلال موسم الزراعة في جوانب إنتاج القطن.
- ♦ تعريف المزارعين بالتقنيات الجديدة في مكافحة الآفات.
- ♦ إنتاج المرشدين بأعمال سوية وتجميع مساحاتهم في وحدات لتنفيذ برنامج مكافحة الآفات لخفض تكاليف المكافحة.
- ♦ متابعة عملهم في حقول المزارعين.
- ♦ القيام بالتحريش الميداني للنوز وإعلان المزارعين بالحد الحرج ونصحهم باتخاذ إجراءات محددة.

بيان بمتوسط التكاليف و الانتاج للقرى التجريبية لبرنامج تحرير مكافحة أفات القطن مقارنة بالقرى المجاورة  
في محافظة المنوفية

القرية	المساحة المزروعة (فدان)	القرى التجريبية (ج) التكاليف ٢٠٠٠	القرى المجاورة (ج) متوسط تكاليف ٢٠٠٠	القرى التجريبية (قطن) متوسط الانتاج ٢٠٠٠	القرى المجاورة (قطن) متوسط الانتاج ٢٠٠٠	القرى التجريبية ١٩٩٩ متوسط الانتاج القرى
الغوري	٥٠	٥١	١٠٢	٩٢	٧٥	٧
ميت فارس	٨١	٥٠	١٠٢	٨٧	٧٥	٧
المرافقة	١٩٠	٥٧	٩٧	١٢١	٧٦	١١
سلامون بحري	١٤٠	٥٦	٩٧	٨٩	٧٦	٨٦

## المشاكل المشتركة بين المحافظات

### المزارعين:

- (١) لم يستطع بعض المزارعين التعرف على الحد الحرج للإصابة بأفات القطن بمفردهم.
- (٢) لم يتخذ بعض المزارعين القرار الصائب للرش بأنفسهم.
- (٣) لم يستطع بعض المزارعين استخدام كتيب الفحص.
- (٤) عدم استجابة بعض الزراع لحضور الحلقات النقاشية.
- (٥) صعوبة فهم بعض المزارعين لما يتم مناقشته في الحلقات النقاشية

### المرشدين الزراعيين:

- (١) عدم التفرغ الكامل لمعظم المرشدين الزراعيين للعمل في هذا البرنامج.

### تجارب المبيدات:

- (١) لم يقدم القطاع الخاص للمزارعين أى نوع من أنواع النصائح والإرشادات.
- (٢) ارتفاع أسعار المبيدات عن مثيلها في الجمعيات التعاونية.
- (٣) انخفاض ثقة المزارعين في مبيدات وخدمات القطاع الخاص.

### الجمعيات:

- (١) بعض الجمعيات الزراعية مازالت تكافح آفات القطن دون إشراك المزارع في أعمال المكافحة لحقول.
- (٢) عدم تعامل بعض الجمعيات التعاونية مع المزارعين بالأجل في بداية الموسم.
- (٣) عدم توفر أنواع آلات الرش المختلفة التي يرغبها المزارعين في الوقت المناسب في بعض الجمعيات التعاونية.

### وزارة الزراعة:

- (١) عدم منح المزارعون دائما الحرية الكاملة لاتخاذ القرارات اللازمة لمكافحة آفات القطن.
- (٢) لا يزال بعض المزارعون يحتاجون إلى إذن رسمي من المرشدين الزراعيين للحصول على المبيدات في الجمعية.

## محافظة الدقهلية

### العقبات الرئيسية التي يواجهها المزارعون في البرنامج

- نقص المعلومات المتاحة لدي زراع القطن لإدارة المحصول.
- نقص المعلومات المتاحة لدي المرشد عن إدارة المحصول.
- عدم توفير الأدوات ووسائل الإيضاح والنشرات الإرشادية.
- عدم قدرة المزارع علي استخدام استمارة الفحص.
- عدم مناسبة مواعيد الحلقات النقاشية للمزارعين وخاصة الموظفين منهم.
- نسبة كبيرة من مزارعي القطن في قرية منشأة الاخوة من مزارعي الإصلاح.

### الأشياء الضرورية

- الاتفاق علي مواعيد مناسبة للحلقات النقاشية للمزارعين.
- عند اختيار قرية لتنفيذ البرنامج لابد من تنفيذ لكل مزارعي القطن في هذه القرية.
- تدريب الجيد والمستمر للمرشدين والمزارعين.
- تبسيط استخدام استمارة الفحص للمزارعين.
- توفير المبيدات الموصي بها سواء بالنقد للقادر أو بالأجل في الجمعيات.
- توفير آلات الرش المناسبة بالعدد الكافي للمزارعين في الجمعيات.

## محافظة المنوفية

### العقبات الرئيسية التي يواجهها المزارعون في البرنامج:

- عدم قدرة المزارع على استيعاب الحدود الحرجة للإصابة بالحشرات.
- عدم تفرغ بعض المزارع وعملهم في مجالات أخرى غير الزراعة.
- عدم ملاءمة تصميم استمارة الفحص الحشري ليتعرف عليها المزارع بنفسه.
- صغر المساحات القطنية مما يدفع المزارع لعدم الاهتمام بالمكافحة.
- حاجة المزارع المستمرة للتدريب على تنفيذ البرنامج.

### الأشياء الضرورية:

- التدريب الجيد للمرشدين والمزارعين.
- التدريب على اكتشاف الإصابة ومعرفة الحدود الحرجة.
- تدريب على قراءة استمارات الفحص.
- التدريب على أنواع المبيدات وجرعاتها.
- توافر المبيدات الموصى بها اللازمة سواء بالنقد أو بالأجل في الجمعيات.
- توفير الآلات المناسبة بالعدد الكافي للمزارعين في الجمعيات

## محافظة البحيرة

### العقبات الرئيسية التي يواجهها المزارعون في البرنامج :

- إقناع المزارع بمسئولية الكاملة عن تنفيذ برنامج مكافحة الآفات المتكاملة و ذلك بالإعداد الجيد له بالتدريب و الإرشاد.
- منازل الوزارة تعتبر نفسها مسؤولة عن المزارع المتقاعس.
- توفير مبيدات القطن بالجمعيات بالسعر المناسب.
- وضع خطة زمنية محددة للتحرير الكامل لتنفيذ المشروع مع إعلانه علي كافة المزارعين و الجمعيات الزراعية.

### الأشياء الضرورية:

- تعريف المزارع علي كيفية إدارة محصول القطن.
- توفير الخدمات بالأجل للزراع ( مبيدات - آلات الرش).
- الإلتزام بالمبيدات المصرح بها من وزارة الزراعة و بالسعر الرسمي.
- الإرشاد المستمر للزراع في مجال مكافحة الآفات.
- التدريب المستمر المرشدين الزراعيين.
- الرقابة الصارمة علي تداول المبيدات.
- تدخل الوزارة في علاج نيران اللوز.

## محافظة كفر الشيخ

### العقبات الرئيسية التي يواجهها المزارعون في البرنامج

- عدم قدرة بعض المزارعين علي استيعاب استمارة الفحص الحشري لعدم وجود صور توضيحية لأطوار الأفات.
- عدم ملائمة مواعيد الحلقات النقاشية للمزارعين لانشغالهم بأعمال أخرى.
- عدم إقتناع بعض المزارعين بالحدود الحرجة للأفات عند الرش.
- عدم اتباع دورة زراعية وقيام بعض الزراع بزراعة مساحات متداخلة.
- عدم توافر الثقة لدي بعض المزارعين بالنسبة لتجار القطاع الخاص.

### الأشياء الضرورية

- الإلتفاق علي مواعيد مناسبة للحلقات النقاشية للمزارعين.
- عند اختيار قرية لتنفيذ البرنامج لابد من تنفيذ لكل مزارعي القطن في هذه القرية.
- اختيار تجيد والمستمر لمرشئين والمزارعين.
- تبسيط استخدام استمارة الفحص للمزارعين.
- توفير آلات الرش المناسبة بالعدد الكافي للمزارعين في الجمعيات.