

**Rural and Agricultural Development Communication Network Project  
(RADCON) UTF/EGY/021/EGY**

Draft Report  
**RADCON Stakeholders Analysis**

**Part Two**  
**Information Needs Assessment of VERCON stakeholders**

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## **1. BACKGROUND AND OBJECTIVES:**

VERCON functions through 7 main systems namely:

- Farmer problems tracking system.
- Agricultural news system.
- Agricultural economic database system.
- Bulletins review system.
- Agricultural expert systems.
- VERCON forum system.
- VERCON monitoring system.

These systems were updated and developed regularly in the last 3 years according to the users remarks and operation problems identified through the monitoring meetings, database analysis and emerging innovations. All systems had some modifications except the “Farmer problems tracking system” that was upgraded and supported with a special monitoring system. For the purpose of stabilizing VERCON system, no comprehensive view was developed. On the other hand, VERCON systems in the first phase were identified as a pilot communication tool to test the potentials of using ICT in bridging the gap in the extension-research natural system, yet only some communication lines were tackled.

Hence, the study aimed at developing the current systems according the users’ needs and ideas, and to identify new systems to support extension-research information flow based upon information/communication needs.

## **2. METHODOLOGY:**

### **2.1. Situation analysis:**

To track the barriers facing VERCON users and their suggestions to be used as a base of the questionnaires and an interview guide, the in hand data were analyzed. The first source of the barriers and suggestions analysis was the monthly reports of all VERCON users in the working sites covering the period from the project start date (April 2001) till the end of 2004. The second source of data was the “tracking farmers problems” and the VERCON forum databases. The third source of data was the sub-system of monitoring the “tracking farmers problems system”, and the fourth was the Monitoring VERCON systems.

The operational and usage problems of VERCON systems and operators suggestions resulted from this analysis were used as a bases to build the study data collection tools.

### **2.2 Study population and samples**

#### **2.2.1 VERCON operators at the working sites**

VERCON operators in all working sites are the VERCON users responsible for operating the different systems and have an access to input data in all working sites. A stratified representative sample was drawn rated to 50% of the users in all sites. The total number of respondents amounted to 59 respondents as detailed in (Table 1).

**Table1: Population of VERCON operators in all working sites and sample drawn**

	Site	Number of similar sites	Total number of operators	Sample
1	Agricultural Directorate at Kafr El-Shiekh, Assuit, Nobaria, Ismaillia, Behiera, and Fayoum governorates	6	12	6
2	Extension centers in the abovementioned 6 governorates	39	78	39
3	Researchers in Sakha, Sabhia, Nobaria, Kassasin, Fayoum, and Shandaweel research stations	6	13	6
4	The economic sector	1	2	1
5	Central Administration for Agricultural Extension Service (CAAES)	1	3	2
6	Central Administration for Agricultural Research & experimental stations	1	1	1
7	Development Support Communication Center	2	4	2
8	Agricultural Extension and Rural Development Research Institute	1	3	1
9	Central Lab of Agricultural Expert System	1	7	1
	<b>Total</b>	<b>58</b>	<b>123</b>	<b>59</b>

**2.2.2. VERCON one-visit users:**

VERCON one-visit users are the users that visited VERCON site only once according to the VERCON registry database. The sample was limited to VERCON users from 1/1/2004 to 31/12/2004 to ensure that those users would remember the site especially that they visited it once. Users out side Egypt were also excluded whether from Arab countries (62 users) or other parts of the world (40 users). The total number in this category amounted to 875 users and was calculated by counting the users that the result of subtracting their date of the last visit from the date of first visit was zero.

**2.2.3. VERCON frequent users**

This category of users consisted of the users that visited VERCON site more than once according to the VERCON registry database. The sample was limited to VERCON users from 1/1/2004 to 31/12/2004 to ensure that those users dealt with the recent updates of the network. The total number in this category amounted to 458 users and was calculated by counting the users that the result of subtracting their date of the last visit from the date of first visit was greater than zero.

**2.2.4. Decision makers:**

This category included some of the top management in the extension system and in the marketing and economic system of MALR.

Names and posts of those interviewee are:

- Dr. Ibrahim Rezk, Director of CAAES
- Dr. Mohamed Ayoub, Director of the Marketing Information Project.
- Eng. Ahmed Sabra, director of the statistical department, Economic Sector

- Eng. Khalil Aly Khalil, Director of the Technical Office, CAAES.
- Eng. Hassan Saleh, Director of Extension Programmes department, CAAES.
- Eng. Abdel Fattah Saied, Director of Extension Centers department, CAAES.
- 6 extension officers in the Extension Department of the Agricultural Directorates of: Kafr El-Shiekh, Assuit, Nobaria, Ismaillia, Behiera, and Fayoum.

## **2.3. Data collection tools:**

### **2.3.1 Group questionnaire:**

A group questionnaire was developed to assess information and communication needs of VERCON operators at all sites (Annex I). The problems investigated in the questionnaire were derived from the problems reported during the monitoring meetings and reports of VERCON operators in the past three years. The main items aimed to identify the following:

1. Farmers problem tracking system:
  - Identifying the system's utilization/operating problems.
  - Identifying the reasons for the weak reporting of marketing problems.
  - Problem/solution re-articulation potentials.
  - Potentials of making the system publicly accessible.
  - Suggestions to develop the system.
2. News and Events Management System:
  - Suggestions to develop the system.
  - Potentials of topics to be published through advertisement.
  - Suggested sites to participate in providing the system with news.
3. Extension bulletin system:
  - Subjects of needed bulletins.
  - Needs of agricultural magazines.
  - Suggestions to develop the system usage.
4. Expert systems:
  - Suggestions to develop the systems' extension function.
  - News fields of expert systems needed.
5. New systems:
  - Agricultural Services Guide.
  - System for agricultural training.

### **2.3.2. E-mail questionnaires:**

Two questionnaires were developed, one for VERCON one-visit users, and VERCON frequent users (Annex II and III).

1. VERCON one-visit questionnaire: The main items aimed to identify:
  - Availability of the user's information needs.
  - Quality of information and presentation.
  - The user reasons for abandoning VERCON.

- The user's suggestions.
2. VERCON frequent users: The main items aimed to identify:
- Availability of the user's information needs.
  - Quality of information and presentation.
  - The user's suggestions to enhance gender issues through VERCON.
  - User's difficulties in using VERCON systems.
  - The user's recommendations to develop the current systems and his suggestions for new systems.
  - User's suggestions for RADCON systems and information.

The first questionnaire was posted through [vercon4u@yahoo.com](mailto:vercon4u@yahoo.com), and the second was posted through [vercon@claes.sci.eg](mailto:vercon@claes.sci.eg).

### **2.3.3. Interview guides:**

An interview guide was developed to identify other communication lines between research and extension that were not included in VERCON in the first phase. The guide covered the following main points:

1. Systems of extension information being exchanged between and within extension organizations and research organizations including marketing information system.
2. Information inputs:
  - Types of information within each system.
  - Source of information and its organizational level.
  - Action to be taken.
3. Information processing and outputs:
  - Processes.
  - Destination of information and its organizational level.
  - Authority of publication.
4. The system feedback:
  - Level of monitoring
  - Frequency
  - Circulation
  - Topics and report contents.
  - Destination of information. and its organizational level.

### **2.3.4. Documents collected:**

To identify the formal communicational lines that have organizational lines between research and extension; various reports and documents from extension sites were collected. The collected timely reports, field monitoring report, office, field and home visit records, extension programmes documents and monitoring reports amounted to 159 documents (Table 2). Some of these documents are replicates of the same format, yet its articulation may differ sometimes, which might help to adjust the proposed system database during implementation phase.

**Table 2: Documents exchanged between research and extension systems**

<b>Record</b>	<b>Source site</b>	<b>Number of records</b>
Extension programmes (Canola, Date Palms, sisal, Parley, Wheat in newly cultivated land, Faba Beans and Lintel, Onion, Winter fodder crops, Over cropping Cotton and other crops, and Marketing programme for exportation and domestic consumption)	Research Institutes (through CAAES)	12
Individual, Committee and Collective monitoring reports (central level).	CAAES	23
SMS committee monitoring report (governorate level).	Agricultural Directorate (AD)	5
Current crop status survey	AD	7
Daily climate report	AD	2
National extension campaign daily monitoring report	AD	1
Extension centers meeting/ training schedule (monthly and semi-annual)	AD	3
Extension center monthly achievement report	AD	1
Monthly plan for extension meetings	Extension Center	29
Monthly achievement report	Extension Center	26
Semi-annual achievement report	Extension Center	11
Annual achievement report	Extension Center	2
Extension meeting proceedings	Extension Center	26
Office visits record	Extension Center	19
Field visits record	Extension Center	19
Home visits record	Extension Center	6
Daily monitoring report	Extension Center	8
Implemented meetings report	Extension Center	3
Field visits plan	Extension Center	1
FFS report	Extension Center	1
Demonstration fields report	Extension Center	1
Needs assessment questionnaire (to develop the plan of the center's program)	Extension Center	1
Watching/listening club report	Extension Center	1
<b>Total</b>		<b>159</b>

**2.4. Procedures:**

Data were collected by group interview using the pre-designed questionnaire in 2 sessions. The first session was held on January 26, and covered VERCON operators in all sites of Kafr El-Shiekh, Assuit and Nubaria governorates, as well as other operators at the central level. The second session was held on January 30, and included VERCON operators in Ismailia, Fayoum and Behira governorates.

The e-mail questionnaires for one-day visitors was posted on the 15<sup>th</sup> of January. Users outside Egypt amounted to 102 visitors and were excluded from the list. Of the 773 mail address available; there were 184 addresses (23.8%) that seemed to be false superficially and were excluded. The number of actual questionnaires mailed to this category amounted to 589 messages. Right after sending, some ISP returned the message indicating that the address could not be found or account expiration. These messages amounted to 411 messages representing 53.17% of the total one-day visitors. Users might have falsified their addresses because the system does not allow logging in without having a mail address. This indicated that the number of users that had likely received the questionnaire in this category amounts to 178 users. Users replied to this questionnaire reached 19 users.

The e-mail questionnaire for other VERCON users was posted on the 31<sup>st</sup> of the January. Superficially false addresses amounted to 128 rating to 27.95%. the questionnaire was sent to 330 users. Returned mail reached 97 messages rating to 21.18% of total users in this category; as the address could not be found or because the account was full. Only 8 messages were received as a reply to this questionnaire.

Personal interview was conducted with CAAES director, Program department director, Extension Centers director, and the directors of Extension at the Agricultural Directorate level in the aforementioned governorates.

### **3. THE STUDY RESULTS:**

#### **3.1. Responses of VERCON operators:**

##### **3.1.1. Farmers problems tracking system:**

- Barriers of operating and using the system in descending order:
  - Delay publishing of some solutions.
  - Difficulty of describing the symptoms sometimes.
  - Farmers still seek solutions for the same problems that appeared in the last season.
  - The problem formulation cannot be rephrased after uploading it by the extension center.
  - Problems cannot be searched for a specific date or period.
  - Some published problems and solutions are not valid in the current season.
  - Some published problems and solutions are unclearly or incompletely described.
  - Many steps to log in the site's page.
  - Delay of the solution from some research institutes.
  - Some problems should be personally checked by the researcher or through the use of a sample.
  - The system has no facility to justify the reason of not having a solution in the research station.

- Communication lines between research institutes and research stations through the system are missing, and are currently alternated through the Central Administration for Agricultural Research & experimental stations. Such alternative is long and has no organizational line to support it.
- Unavailability of soil and water analysis data to describe the problem precisely.
- Barriers of reporting marketing problems:
  - Weak awareness among farmers and lack of trust that extension center can solve the marketing problems.
  - Unavailability of the wholesale daily prices of vegetables and fruit, and also seasonal crop prices in the suitable time.
  - Fluctuation of market prices.
  - Farmers weak ability to recognize marketing problem and exportation demands.
  - Domination of private sector on the market and putting higher prices than the government; which weaken farmers trust in the governmental sources to solve marketing problems.
  - Unavailability of price trends before the season.
  - Much of marketing problems needs an administrative solution (official decision).
  - Extension workers are not fully aware about agricultural marketing systems.
  - Weak capacity of the extension center or the research station to solve marketing problems.
  - Some problems involve more than one authority to be solved; which causes the delay of the solution.
  - Small production, cooperative production or selling the crop before harvesting (contracting) make farmers avoid lots of marketing problems.
- Suggestions to develop the system:
  - Support extension centers, agricultural directorates and research stations with scanners to help problem or solution description. In this case the system should support uploading the pictures.
  - AERDRI and CAAES should analyze the published and repeatedly reported problems in the last season for each commodity to identify the needed modifications in the current extension programmes.
  - It is preferable to use options in the system to describe a problem to help the extension worker to cover all needed aspects of the problem, unify the description and link the system's database with other systems. Expert system options can be a good start for this modification, but an extra text box should be available for free text by the extension worker.

**In this case, a search engine can be developed to enable the user of searching the farmer problems database by symptoms to find published solutions.**

- Add a button in the extension center's page to report the problems uploaded by mistake and should be deleted from the database. In this case, a text box should be available to justify the reason for elimination for the system administrator. This facility should not be allowed except for the extension center as the source of farmer's problems.
- Research Institutes should have accessibility to the system to monitor the problems solution, and take over the problem to solve it in case of unavailability of a solution in the research station, or a delay for more than three days in the research station.
- Research Institutes should analyze the published problems and solutions for each commodity seasonally to determine the valid problems in the next season and delete invalid ones.
- To enable the extension center to rephrase or modify the problem description, or to enable the Agricultural Directorate to modify the extension center's formulation and then the research station consider the best formulation (extension center's or AD's) to publish.
- To enable the public users to report their agricultural problems directly to the system. In this case, the problem field should be specified by the user through clear options and the destination of the problem might be the extension center if available and then the research station in the user area. In case of administrative problems, the responsible site might be the Agricultural directorate if available, and then CAAES.
- It is better for the operator to login directly to his page assigned in the system according to his screen name and password, rather than logging through AD's or CAAES's sites. This would also lessen the system's hang-ups.
- Enable the published solution to be supported with pictures of the infection if available. This picture could be uploaded by any site, but should be approved by the researcher for publishing.
- The system might be supported by a limited communication tool for exchanging short text message to enable one operator to communicate with one or more operator for some requests or clarification.
- It is very preferable to support the system by a researcher online in the common fields. This might make solving the problem much faster, and make the confidence of the beneficiaries grow stronger. This system could work for peak hours only, and the problems and solutions should be uploaded in the database as well. Scheduling online researcher can be coordinated among the working research stations to cover the needed specification in the working hours.
- Find a way to link the farmer problems tracking system with the extension bulletin system to support the solution with more information if needed (For more information click here).
- Add a new page for longer answers/solutions in the shape of an article. Such a reply was suggested by researchers sometimes and couldn't be published.

### 3.1.2. Agricultural news system:

- System development suggestions:
  - Move the news system to RADCON main page instead of being a link in VERCON.
  - Support the system with pictures at least in the main page.
  - Enable archiving the important articles and facilitate retrieving it by the user.
  - Put more focus on agricultural innovations news.
  - Add a page for successful experiences and ideas (endogenous knowledge).
  - Successful experience should include: youth experience in establishing small projects, marketing experts successful ideas, cost reduction experience.
  - Add new page titled (TO THE EDITOR) to respond to VERCON users.
  - Add a new page for the Extension vehicle schedule to be issued by DSCC and published by CAAES.
  - Enable the chief editor to store important news to an additional database for news.
- Fields of advertising that farmers frequently ask about:
  - Research Institutes' products, selling places and prices.
  - Principal Bank for Development and Agricultural Credit (PBDAC) credit services and commodities being sold through its facilities.
  - Calls of National Campaigns.
  - Emergency calls (warnings).
  - National advertising (protective ads regarding diseases, vaccinations ..).
  - Products, prices and selling places of pesticides companies.
  - Products, prices and selling places of seed companies.
  - Agricultural machinery ads.
  - Exportation companies ads.
  - Developmental projects.
  - Products, prices and selling places of fertilizer companies.
  - Products, prices and selling places of poultry companies.
  - Products, prices and selling places of seedlings.
  - Products, prices and selling places of the General Administration of Agricultural Culture.
  - NGOs projects for youth.
  - Warning ads about distrusted products.
  - Agricultural and rural products exhibitions.
- Suggested sites for news input to the system:
  - Extension Centers
  - Agricultural Research Center (HQ)
  - Agricultural Directorates
  - Agricultural Economic Sector
  - Research Institutes and Central Labs
  - CAAES
  - Research Stations

- Development Support Communication Center (DSCC)
- Faculties of Agriculture
- Policy and Coordination Unit for Women in Agriculture (PCUWA)
- MALR public relations
- General Administration of Agricultural Culture (GAAC)
- Central Lab for Agricultural Climate (CLAC)
- Egyptian National Agricultural Library
- Agricultural Services Sector
- Agricultural councils
- Suggested Agricultural Magazines to be online:
  - Agricultural Extension (bi-monthly issued by CAAES)
  - Agricultural Extension in the New Lands (bi-monthly issued by CAAES)
  - Agricultural Climate (monthly issued by CAAES)
  - Agricultural Journal (monthly issued by GAAC)
  - Shorouk Magazine (Private). Uploading older versions can be negotiated with the magazine board
  - A link with Cooperative Journal and Agricultural Magazine ([www.dareeltaawon.org](http://www.dareeltaawon.org)).

### **3.1.3. Bulletin System:**

- In addition to the 38 bulletin subjects suggested in the questionnaire, respondents recommended another 25 issues. Details are in (Annex IV).
- Respondents suggested that computers in the Extension Centers be support with a video card to connect their PC with the available TV to help running VERCON shows during extension meetings for a larger group of farmers.
- Some respondents indicated that lots of these bulletins are already published by the Agricultural Technology Utilization and Transfer (ATUT) project and some other projects, specially those working in the newly reclaimed lands.
- Respondents recommended that the bulletin can be downloaded as a single and integrated file. This would facilitate using this system offline and the fast retrieval or printing of the bulletin.
- Support the system with Articles to work as a compromise between an integrated bulletins and problem solution that exceed the limited space in farmers problems tracking system. Such solutions were already offered by researchers, but there was no way to publish it in VERCON.
- It is recommended to add a main page for bulletins categories only. In this page, the category link opens another page containing all bulletins in this category, with options to read it online, or download it in one big file preferably in a word format. Some useful links to other bulletins in Arabic or English can be added to either page. These links should be verified by the concerned researchers.

### **3.1.4. Expert Systems:**

- Suggestions for developing the current systems:
  - Update each system before the season begins.
  - Link all other sub-systems with the other available scientific material published on VERCON, like the diagnosis sub-system.

- Develop a mechanism in the system to follow-up repeatedly consulted problems by users; that can be used to warn other users about possible events occurrence.
- Develop the main page of the system, and include available fields of advice.
- New Expert Systems suggested to be online:
  - Field crops: Cotton, Maize, Sorghum, Sugar Cane, Peanut, Faba bean and Clover.
  - Fruit: Citrus, Cantaloupe, Apricot, Date Palms, Guava, Grapes, Mangoes, Stone Fruits, and Banana.
  - Vegetables: Onion, Garlic, Cucurbits, Cauliflower, Green Pea, Egg Plant, Cabbage, Sugar Beet, Potato, Sweet Potato, Pepper, Cucumber, Water Melon, and Artichoke.
  - Herbal, Medical and Aromatic plants.
  - Comprehensive expert systems: IPM, Weed Control, Crop Selection and Soil and Water Management.

### **3.2. Responses of VERCON one-day visitors:**

- Topics that visitors were seeking and did not find it in descending order:
  - Marketing, commercial agriculture, and agricultural economics
  - Poultry, Rabbits and sheep breeding
  - Recent statistics about field crops
  - Forestation
  - Mushroom
  - Chick pea
  - Food technology
  - Dairy
  - Bio-technology, using bacteria for food, soil and bio-agriculture
  - Medical and Aromatic Plants
  - Placed for selling Rabbits and Sheep, and trusted veterinary services
- Information problem users face:
  - Incomplete sometimes
- The reason for abandoning VERCON after the first visit:
  - Forgetting the screen name and password, or unable to use them again
  - The site does not have the needed information
  - Queries sent to the site were neglected
  - Many steps to find the needed information
  - Satisfaction in the first visit with information obtained
  - Using more than a name and password for VERCON login
  - The visit was due to curiosity
  - Forget the IP of VERCON
- Suggestions:
  - Add a system for agricultural research results,
  - Eliminate the registry system for ordinary users,
  - Add a page for related useful links,
  - Translate selected information from other related sites,

- Add a mechanism to respond to users questions and queries,
- Support recommendations with references and pictures if applicable,
- Consider users in other Arab countries,
- Facilitate printing the online material, and
- Add a HELP tool to use VERCON systems.

### **3.3. Responses of VERCON frequent users:**

- Availability of information sought by users:
  - Sometimes not available.
- Topics users searched for but did not find it:
  - Lamb fattening,
  - Maize and clover silage,
  - Marketing clean products (chemical free),
  - Farm wastes management and recycling,
  - Improved irrigation methods,
  - Selling places and prices of soil analysis,
  - Data about animal production, and
  - Data about agricultural imports and exports geographical distribution.
- Information evaluation:
  - Sometimes incomplete.
  - Sometimes not understandable.
- Suggested topics to be added:
  - Land and soil,
  - Investment in the field of agricultural and animal production,
  - Land protection and reservation,
  - Quantified water consumption of agricultural crops,
  - Quantified fertilizer consumption for agricultural crops,
  - Cost and benefits of organic agriculture,
  - Lamb fattening,
  - Silage making,
  - Bull diseases,
  - Aqua culture,
  - Crop production agenda,
  - Irrigation improvement methods and related organizations/authorities,
  - Selling places and prices of seedlings of MALR, and
  - Citrus bulletin.
- Difficulties when using VERCON site:
  - Slow upload,
  - Data format is not compatible with “Excel” program (economic database),
  - Cannot login to the economic database frequently,
  - Shortage of statistical data, and
  - VERCON updates are slower than users demands.
- Suggestions for new systems for VERCON:
  - Expert system for olives,
  - Expert system for vegetables,

- Small projects for newly reclaimed lands, and
  - Small investors extension.
- Suggestions to enhance women participation in VERCON:
  - Feasibility studies of small projects for women,
  - Rationalize home demands,
  - Discussing women problems and solutions, and
  - Small projects to reuse, reduce or recycle farm wastes.
- Suggestion for RADCON:
  - Include a system for users queries and officials answers,
  - Results and lessons learned from developmental projects,
  - Market places and exportation of agricultural production,
  - Geographical agricultural maps, and
  - Charts of developmental projects.
- Problems of using the Registry system:
 

Analyzing the system database and published information; false e-mail addresses were detected in high rates. This might result from:

  - The e-mail address field in the registry system is required, so the user write a false one. This is likely done when:
    - The user has no e-mail account,
    - The user does not want to reveal his address, or
    - The user does not like to check e-mail regularly.
  - Retrieving forgotten password is not possible, which might justify replicates of personal data for the same user.
  - Instructions for new users to register are unclear, especially for novice users.
  - Some users suspect the reasons for having their personal information.
  - The log-in or registration steps are an extra un-justified waste of time.
  - Some users (e-mail questionnaires) consider registration as a restriction for using the site.
- Suggestions for the Registry system:
  - In order to shorten login steps to the system and make the site handy to novice users; conditioned accessibility should be eliminated. Registration system should be limited to:
    - formal users in the working sites
    - VERCON forum users only in case of posting messages.
    - Problem solving database users in case of posting a problem.
  - User data (except the name and occupation) would be accessible only if the user accepted that option.
  - User data should include:
    - Full name
    - Occupation after adding open field for “other”
    - Organization after adding open field for “other”
    - Gender
    - Residence, with an extra box for the country of users outside Egypt

- E-mail address (optional)
  - Option to reveal his personal data publicly
- The system should confirm the login name and password by mail (if available).
- It should have a mechanism to retrieve forgotten password.

### **3.4. Personal interviews and document analysis:**

This analysis aimed to identify communication lines between research and extension. The base for analysis was system oriented, i.e., tracking the communication line following the organizational research-extension sub-systems.

Interviewing the study respondents revealed that there are three types of extension programmes:

- National extension campaigns for strategic crops.
- Top-down extension program for the main crops.
- Bottom-up programs to cover specific needs of the area.

Extension monitoring was mainly used to follow up the implementation of these programs and crop status during the specific crop season.

### **3.4.1. Communication lines and decision nodes of the national extension campaigns:**

#### **3.4.1.1. National extension campaign overview**

There are 10 national campaigns in Egypt covering major/strategic crops. There are some variations in the details of implementation among campaign, yet the structure is always distributed on three levels as follows:

- National level:
  - Campaign president: the president is assigned by a ministerial decree. Some campaigns are headed by the minister himself and has a deputy. The campaign has also one or more executive director at the central level.
  - A general steering committee: headed by the campaign deputy president and composed of top management personnel in MALR and representatives from concerned institutions from other ministries, general cooperatives, and authorities like the Academy of Scientific Research and Technology, Ministry of Finance, Ministry of Water Recourses and Irrigation, Ministry of Military Production, Ministry of Planning, Ministry of Local Development, Ministry of Commerce and Industry, Ministry of Environment, Ministry of Youth .. etc. The general steering committee assigned to study the concurrent crop problems, draw suggestions/solutions, follow-up execution and facilitate input supply at the proper time
  - A General Implementation Committee: headed by the campaign executive director or MALR's undersecretary for extension. Its members represent the concerned sectors and central administrations of MALR, as well as representatives from other ministries and authorities. The general implementation committee is to follow-up implementation process for the specified recommendations, seek solutions for emerging problems during

- implementation. Submit monitoring reports to the campaign president and his deputy.
- General scientific committee: headed by one of the campaign deputy executive directors. The committee member are mainly the deputies of ARC and directors of concerned research institutes, some of its concerned research departments, CAAES director, and the leaders of scientific teams in the assigned governorates. The task of this committee is to follow-up the implementation of the technical recommendations, prescribe solutions for emerging problems of the crop in all growing stages and enhance the grower production recommended varieties.
  - Monitoring and evaluation committee: headed by the deputy president of the campaign and membership of some research institutes directors, representatives from the ministry of planning and the ministry of supplements and domestic commerce. This committee is responsible of the monitoring and evaluation of crop production and marketing processes all over the country, detect problems and assign solutions, and report directly to the campaign president.
  - Governorate level:
    - Governorate Steering Committee: headed by the governor and under secretaries or general directors of the concerned ministries in the governorates, representatives of related companies and producers, PBCAC, media representative in the governorate. Tasks of this committee is to study the production and marketing problems of the crop raised on its level, pass what cannot be solved to the higher levels or solve what is in hand and follow-up solution / application.
    - Scientific committee: headed by a team leader and membership of researchers in all scientific specializations related to the crop from the regional research stations, representatives of the faculties of agriculture as well as commodity specialists and Extension director in the governorate. The scientific committee is concerned with dealing with farmers to extend the recommendations, train the field staff, track technical problems and recommend solutions.
    - Implementation committee headed By the director general of agriculture and membership of directors of the related ministries and authorities in the governorate. This committee is concerned with the implementation of recommended practices, and follow-up the crop situation till harvesting, study emerging problems, facilitate input supply to farmers and ensure adequate distribution and equity in the proper time.
  - District level: One Village Extension Worker (VEW) is assigned to each district and qualified as a subject matter specialist through internal and external training.

#### **3.4.1.2. National extension campaigns suggested system:**

There is more than a node in communication line of national campaigns activities. Although the campaign is conducted in the three levels of administration, it does not follow the regular organizational line within MALR. Campaigns also have a firm system

of information flow, but each one have its specific leadership, team, committees, agenda, and affiliated to different institute/department depending on the crop it serves.

To fit extension campaigns into a system in VERCON, it is recommended to:

- Select only one campaign to be a pilot model. At least the campaign's assigned governorates should be covered by VERCON. Even in this case only Agricultural Directorates and research stations will be the only nodes that have a PC and a land line, but the rest of the sites (districts) will need to be equipped.
- All the committees should be represented in the system as the control nodes responsible for the campaign management.
- Training in the campaign system should be linked to the main training system suggested in VERCON.
- A special technical assistance should be considered in this system and be open for public.
- A reminder or a forewarning space should be included in RADCON homepage as a part of the news system.
- A separate monitoring system similar to the national programme monitoring system should be considered.

### **3.4.2. National Extension Programmes:**

#### **3.4.2.1. Overview:**

The result of national programmes analysis revealed that:

- Almost all programmes are developed by a research institute or one of its departments
- The programme is submitted to CAAES for financing and approval.
- Formats of extension programmes are not unified.
- Planning protocol is rigid.
- Recommended practices are developed top-down as feed back communication line is rather weak.
- Implementation procedures are shared by all levels whether planning, execution, or monitoring.
- A summary of the final programme reports is already published in VERCON through CAAES web page.

#### **3.4.2.2. Suggested system:**

A detailed suggested programme, and information flow matrix is shown in annex VI.

### **3.4.3. Local extension programs:**

#### **3.4.3.1. Overview:**

The result of local programmes analysis revealed that:

- Almost all formats are unified.
- Management of all activities are firm and regular.
- Documentation is firm and regular.
- Articulation of activities is not unified, yet some VEWs are very fluent doing that.

- Most formats are used for regulating the activities rather than documenting learning/training material.
- Results of office, field and home visits are already reported through the “Farmers problems tracking system”.

#### **3.4.3.2. Suggested system:**

A detailed suggested programme, and information flow matrix is shown in annex VII.

#### **3.4.4. Monitoring system:**

##### **3.4.4.1. Overview:**

The current VERCON monitoring system proved to be effective and supportive for improving the network activities. Although the system is limited to VERCON, it has the potentials for expansion and has the basic principles to be generalized to contain the extension activities. The suitable system for its expansion is the National Extension Programme System. The main principle underlying the linking of the two systems together is that the planned programme was articulated in a measurable way, as long as the M&E target is to improve the programme.

##### **3.4.4.2. Suggestions:**

- Add a new component to the system to monitor national extension programmes.
- Since the basic components of the system are the same as the basic components of the national programme system, it necessitates that input data should be registered in both system at the same time.
- A pilot programme might be selected considering the currently working governorates in VERCON.
- It is recommended to unify monitoring formats to suit the database categories.
- It is also recommended to re-assign monitoring activities among sites according to the programme’s nature.
- Inasmuch the agricultural administration at the district level is not represented in VERCON, it is recommended to either:
  - Assign the Agricultural Directorate at the governorate level to upload the data, or
  - Use the nearest Extension Center facilities for the district’s data input.
- Reporting system should be suitable for data output. It should:
  - Allow the decision maker to have a detailed or accumulative report at any point of the programme life span.
  - The report should be articulated in a logical text rather than the tables shape.
  - Although the system has limited access by nature, it should be accessible to the largest number of sites/staff possible. Sharing follow-up information among staff proved to have a very strong effect on the staff motivation in VERCON.
- If the follow-up activities have some recommendation for a site or more in order to put the activities back-on-track, the system should have a mechanism for this.
- A suggested model for the system is attached in Annex VIII. In this suggested format, blue letters are the data timely inputs of the monitoring system, while the

black letters are the data input of the National Extension Programme System i.e., the programme plan.

## **4. NEW SYSTEMS RECOMMENDATIONS:**

### **4.1. Training system:**

- Justifications:
  - Training opportunities are not available for all personnel in all topics all the time.
  - Reference material are not always available.
  - The same courses in the national extension campaigns and programs are repeated in different areas by different trainers. Such a system would unify training material by the best trainer.
  - Trainees/trainer interaction would gain the best modification to the material and makes it permanent.
  - Any Extension worker or Subject Matter Specialist (SMS) can benefit from the courses regardless of his specialization.
  - Advanced farmers, small investors and youth in new lands can join the course.
  - The system can reduce training costs especially if done in the real time.
- Suggested topics for online courses and the frequency responses (highest 20 scores of 72 topics suggested):
  - How to operate VERCON systems
  - Using VERCON in extension
  - Maintaining PC simple software malfunctions (31)
  - Using and maintaining audio visual aids (22)
  - Recycling farm wastes (19)
  - Food technologies (18)
  - Dairy production (17)
  - Bee keeping (15)
  - Poultry production (14)
  - Using MS office (13)
  - Silkworm keeping (13)
  - Mushroom (12)
  - Basic skills for extension workers (11)
  - Feasibility studies (10)
  - Communication skills (10)
  - Operating and maintaining agricultural machinery (10)
  - Cattle breeding (9)
  - Developing extension programmes (8)
  - IPM (8)
  - Improved irrigation (8)
  - Extension needs assessment (7)
  - Rabbit breeding (7)
- Options for the system development:
  - Upload training materials as originally written by researchers or authors.

- Subject the training material to a simple treatment to be uploaded as separate self-learning modules.
- Package training modules in the form of integrated self-learning courses.
- Conduct online training courses using a special group in VERCON Forum System. The course can be conducted by the original authors/lecturers assisted by an educational expert and following the “Computer Assisted Instruction approach (CAI)”.

#### **4.2. Frequently Asked Questions (FAQ):**

A page for the common questions about VERCON usually asked by users. A simple guide or HELP mechanism would be suitable to show regular user how to operate VERCON systems, and how to find the information he seeks. This system do not target training VERCON sites staff to operate or use VERCON professionally as this might be included in the training system.

Examples of such questions are:

- Who are VERCON partners?
- How can I contact the VERCON web team?
- Where is VERCON based?
- How can I receive the Newsletter?
- Why can't I use VERCON in English?
- I have reception problems.
- How can I have a copy of the .....?
- Who are the contact persons of different VERCON systems?
- Can I have VERCON contents on a CD?
- What browser do I need to see your website?
- How can I see the videos on the website?
- What videos can I find on the website?
- How can I use ..... system?
- How can I download ..... to my computer?
- How can I add VERCON to My Favorites?
- How can I make VERCON my homepage?
- How can I post a message on the feedback page?

#### **4.3. Agricultural services guide:**

According to extension workers in VERCON working sites, farmers used to seek the selling places, prices, names, alternatives .. of these services:

- Soil analysis labs.
- Sales points of agricultural production.
- Sales points of input supplies for poultry breeding.
- Sales points of bee and supplies.
- Sales points of veterinary supplies.
- Exporters agricultural production (companies and individuals).
- Importers of agricultural input supplies and machinery.
- Sales points of fertilizers.
- Sales points of trusted pesticides.

- Sales points of seeds and seedlings.
- Sales points of agricultural machinery.
- Sales points of silkworm supplies and marketing places.
- Nurseries.
- Ammonium injection units.
- Poultry and rabbits production stations.
- Dairy collection centers.
- Sales points/breeding stations of cattle.
- Agricultural and rural training centers.
- NGOs working in rural and agricultural domain and its services.
- Directory of researchers, consultants and experts of agriculture and their specializations and contact address.
- Guidebook for exportation production criteria.

#### **4.4. E-commerce agricultural system**

- The system might include:
  - The daily vegetable and fruit wholesale prices. Marketing Information Project (MIP) used to have delegates in the five wholesale markets to get the daily prices in the morning or peak hour, fax it to the project HQ, which distribute it at the same day to media, concerned organizations in MALR including CAAES. CAAES used to fax these prices immediately to all Agricultural Directorates in the country, which distribute it to the district level to be available to farmers. MIP was concluded on February 2005 as indicated by Dr. Mohamed Ayoub in interview (tel. 0123126300). MIP institutionalization activities was assigned to the Economic Sector. A scanned copy of the daily prices fax that was obtained from CAAES is attached in annex V. In this copy it is clear that the fax date is the same as the prices date.
  - Farm prices of field crops during marketing season.
  - Market analysis articles by experts.
  - Exportation opportunities.
  - Transportation companies, railway, airfare .etc, and prices.
- The system would work as a meeting place for both producer, dealers and traders.
- A mechanism for supply and demand presentation might be considered.
- News about the common marketing systems (like poultry stock market).

#### **4.5. VERCON newsletter:**

To be send on demand to the users by e-mails. The contents are about new activities of VERCON, and any significant notifications.

## ANNEX I

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ANNEX II

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ANNEX IV

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## ANNEX V

FROM : MIP

PHONE NO. : 5830267

Feb., 22 2005 12:09PM P1

التاريخ ٢٢ / ٢ / ٢٠٠٥

اسعار الجملة للخضر والفاكهة الطازجة التي سادت أغلب التعاملات بأسواق الجملة  
وهي خدمة تقدمها وزارة الزراعة من خلال مشروع المعلومات التسويقية لمنتجات هذه المحاصيل  
( السعر بالقرش / كيلو جرام ولا تشمل تكاليف التسويق او عمولات البيع )

المحصول	العبور	اكثوبر	الاسكندرية	المنصورة	اسيوط
الحد الأدنى	الحد الأعلى	الحد الأدنى	الحد الأعلى	الحد الأدنى	الحد الأعلى
بطاطس	٣٥	٤٥	٣٥	٤٠	٤٥
طماطم	٢٥	٤٠	٢٥	٣٥	٤٥
بصل أحمر	٣٠	٤٠	٣٥	٤٠	٤٥
كوسة	١٠٠	١٣٠	٧٠	٩٠	١٤٠
بسله	٨٠	١٠٠	٧٠	٨٥	١١٥
فلفل رومي صوب	١٥٠	١٨٠	٢٠٠	٢٢٥	٢٧٥
ياذنجان رومي	٨٥	١٠٠	٩٠	١١٠	١٣٠
خيار صوب	١١٠	١٤٠	١٤٠	١٥٠	١٨٠
ليمون بلدي			١٥٠	١٧٠	١٧٥
برتقال بصره	١٠٠	١٣٠	٩٠	١٢٠	١٥٠
يوسفي	٧٠	١١٠	٧٠	١٢٠	١٥٠
موز وليامز	١٣٠	١٦٠	١٤٠	١٦٠	١٧٥
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ANNEX VI

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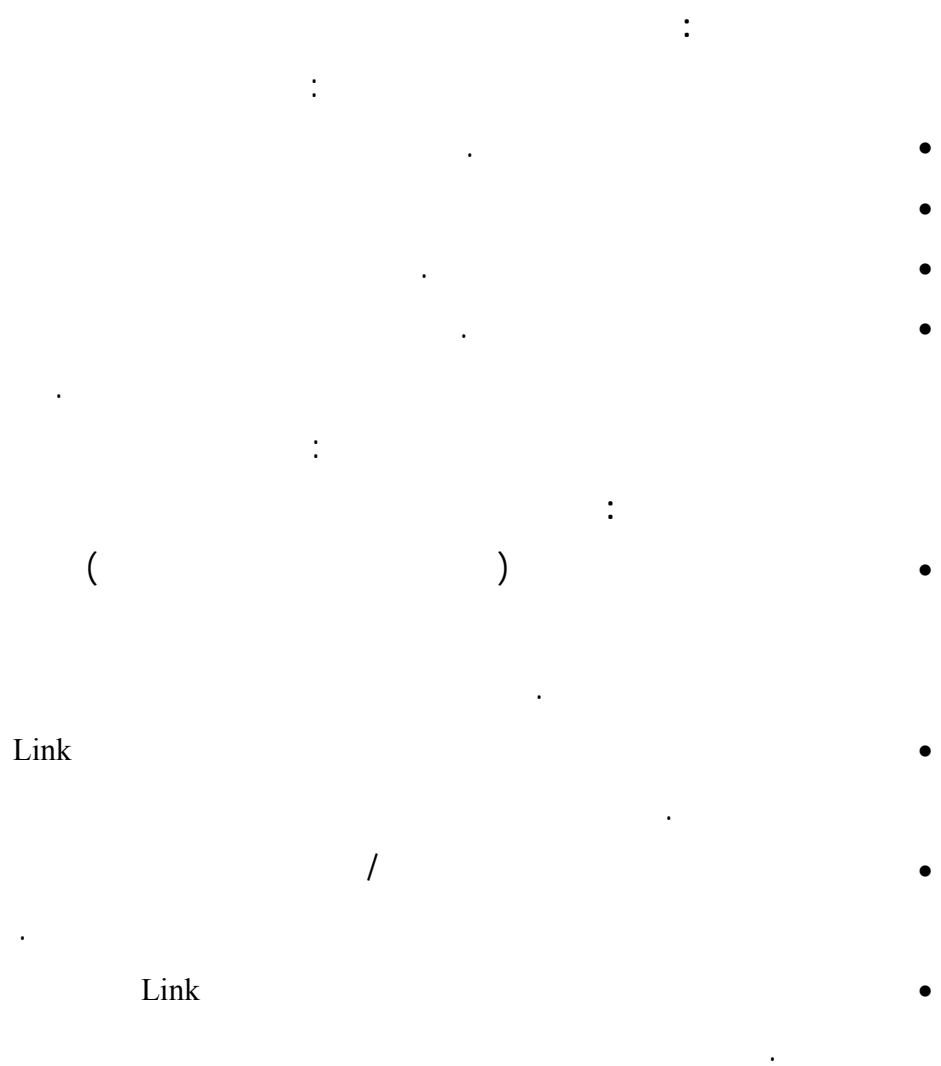
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## ANNEX VII

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ANNEX VIII

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