

CAPACITY BUILDING NEEDS OF THE AGRICULTURE DIRECTORATE



The Agricultural Directorate provides the general administration of agriculture and livestock in Al-Hasakeh and Deir-ez-Zor governorates. Within the directorates there are multiple departments including plant production, plant protection, livestock, and water resources. Agricultural Directorates also cooperate with the Federation of Peasants, Economic Councils, Agricultural Committees and extension centers in districts and villages and have multiple functions that support crop and livestock production. They maintain records of the numbers of farmers and crop acreage, herders and livestock estimates. The Directorates provide extension services to crop producers and access to subsidized seed, fertilizer and other inputs for registered farmers. Agricultural Directorate services for livestock herders are more limited, providing veterinary health recommendations, but few direct services. Those are provided by the private sector.

Supporting Agricultural Services in Northeast Syria

Agricultural Directorates are challenged to provide the support and services of their broad agricultural program mandate.

Pre-conflict, a subsidized system of wheat and other commodity production was well-funded and the Agricultural Directorates provided both services and subsidies to build a robust agricultural economy. The mandate for those services is still embedded in the Agricultural Directorates in Al-Hasakeh and Deir-ez-Zor, but the trained technical staff, infrastructure and financial resources are limited, making it difficult to provide extension and technical services to the agricultural community. Farmers do not rely on these services since only 60 percent of farmers register and of those, only about 10 percent receive the seed, fertilizer and fuel subsidies.

While there are challenges to deliver subsidized inputs, there are many other ways in which the Agricultural Directorates support farmers and the agricultural economy in NES.:

- Provide extension services and agricultural advisory on good agricultural practices for wheat and other crops
- Prepare estimates on farmer numbers, acreage and yield of crops as well as livestock herd estimates
- Organize seed improvement and fee-based seed production systems
- Support farmers with information and tools for integrated pest management and plant protection
- Provide animal health advisory services and technical support to herders
- Support livestock herd improvement through improved artificial insemination and animal husbandry practices
- Promote environmentally sustainable agricultural practices adapted to climate change
- Promote sound agricultural policies on agricultural trade, safe agricultural chemical use, and variety improvement

The needs and requirements for agricultural directorates differ significantly. Al-Hasakeh Governorate previously had more

agricultural resources and personnel. The Agricultural Directorate in Deir-ez-Zor is more nascent in their development of systems and services

In both governorates, the agricultural directorates express significant needs for the development of Guidance Centers to expand their extension and agricultural advisory capabilities. Secondly, both directorates are highly interested in future technical training of their mostly generalist staff. They require both refresher training on crop production and animal husbandry and introduction to modern methods of soil fertility management, integrated pest management and adaptation to climate change. In general, agricultural directorates have capacity development needs in:

Planning for delivery of agricultural services: Planning and capacity needs are wide ranging, from preparing accurate agricultural statistics to managing farmer registration processes and managing data.

Technical Capacity Building. Directors report that the majority of their staff are not specialized and need additional training to better conduct technology transfer and agricultural advisory activities.

Infrastructure and Equipment: Agricultural directorates lack sufficient Guidance Center facilities to carry out farmer extension activities with village outreach.

Laboratories and Lab Equipment: To assist in pest and disease identification and food quality analysis.



Farmer extension training in Al-Hasakeh (Photo Credit: i-APS)



Planning Agricultural Extension Processes in Northeast Syria

Because agricultural directorates in Al Hasakeh and Deir-ez-Zor operate with such limited staff capacity and budgets, there are significant constraints to the programmatic breadth and depth that these offices can address. Current extension processes date back to pre-conflict times when priority crops, such as wheat, were heavily subsidized. These approaches, driven by huge subsidies, are now so severely resource constrained that their current impact is minimal.

For agricultural directorates to perform their outreach and extension mission, there must be a prioritization of activities, clear planning to maximize resource use and sound monitoring that informs analysis and identifies effective activities. The classical in class training, demonstrations and subsidy models may not be the most effective means to deliver extension services. More pluralistic methods and increased use of digital extension tools may be required.



Planting Wheat (Photo Credit: Dreamstime.com)

Planning the Delivery of Extension Services

There are numerous models for planning the delivery of extension services, but nearly all of them have four basic principles: clear identification of issues; prepare a specific plan to address them; deliver the services; and evaluate their effectiveness and impact. While there is significant planning that occurs now, much of it revolves around farmer registration, allocating and delivering subsidies and conducting in person extension services. The outreach is limited. Part of the planning process must prioritize resources to deliver solutions to the issues identified in the planning process.

Identifying key issues. An important part of the process is engaging farmers and farmer groups in discussions about their priorities, concerns and needs. By building engagement from the grassroots, extension services can be adapted to emerging needs. There are good outlets for discussions: Komin agricultural committees, cooperatives, extension offices, agricultural markets present opportunities to engage farmers. Deliberately seeking out information from these organizations

and individuals, supported by data from previous seasons, will enable agricultural directorates to target farmer needs and design services to directly address them. Engaging women and supporting women-headed households must be part of a deliberate planning process that identifies women farmer interests and how best to deliver services to them. Similarly, there is a need to create agricultural opportunities for youth and to engage and strengthen young farmers to continue production as the current generation of farmers ages.

It is certain that the issues identification stage will surface more farmer needs than agricultural directorates can address. Using data and information collected, the extension office needs to analyze the information and make determinations on the cause of a problem and the tools required to resolve them. The second feature of the analysis is to determine the main problems and the potential for agricultural improvement. Priority setting should be a joint effort with farmers that enable agricultural directorates to effectively target limited resources.

Prepare a Specific Plan. When preparing the plan, extension service and farmers must select the solutions they plan to offer. Solutions must be: **Acceptable** to the farming community; **Technically sound** and known to be effective; **Consistent** with local laws and policies in NES; **Feasible** to implement by the technical and extension staff.

The extension plan should be organized around objectives selected through analysis of issues surfaced with farmers. The plan then creates a sequence of activities to be conducted by the extension team and orients the personnel, resources, logistics and methods for delivering on the plan. The plan should also create specific targets and indicators for the achievement of the plan. The collection of tasks oriented against objectives through the crop or livestock season provides a mechanism for measuring the success of specific interventions.



Wheat harvest in NES (Photo Credit: i-APS)



Supporting Agricultural Services in Northeast Syria

Delivering Agricultural Extension Services. Agricultural Directorates deliver services using traditional extension methodologies. They work with agricultural committees, produce brochures and conduct in-class training at regional centers. Upon request, agricultural and veterinary staff will travel to markets and farms to provide recommendations or herd assessments. These are limited since farmers must often cover both the transportation of technical specialists and treatment costs. Because both subsidies and services are now limited, fewer farmers are registering with directorates. Given limited budgets, there are ways to expand outreach to larger numbers of farmers using multiple outreach methods.



- **Provide training to guidance center and generalist staff, input suppliers and service providers.** With the development of clear goals, objectives and actions for through the season, technical staff of the extension service, as well as input suppliers and service providers, can provide training, guidance and mentoring to generalist staff to convey key messages in their communities, providing multiple extension information outlets.
- **Scale outreach through Komin Agricultural Committees, Cooperatives and other farmer organizations.** Farmer-based organizations and committees throughout NES can be served using multiple methods. Outreach sessions can be developed by technical specialists to visit groups to provide key messages and answer questions at meetings. These sessions can be bolstered with brochures and one-page fact sheets through the season that support seasonal crop and livestock production advice.
- **Build simple digital and social media outreach solutions.** With the conflict, radio, television and print media have declined in use in NES. More often, farmers with internet access receive information through online social media and make extensive use of SMS messages and WhatsApp. By developing simple digital systems, the agricultural

directorates can expand their outreach capability. These systems will require research to identify the methods that farmers are most likely to use, but short, seasonal messages can be broadcast out through messaging services and social media. Short videos showing messages on seasonal recommendations can also be broadcast. These systems will not be expensive and can assist outreach to larger numbers of farmers. One other mechanism is digital Q&A sessions where extension specialists respond to farmer questions in a group format.

- **Create lead farmer networks.** Working through komin agricultural committees, the extension department can identify well-known and respected farmers who may serve as lead farmers that share information within their community. Working with them through visitation, in-class training or conference calls or video chats, extension personnel can provide sequenced information on seasonal production advice that they share with their neighbors. A compensation arrangement in-kind or in-cash will need to be developed for a lead farmer network.
- **Gradually build infrastructure.** Many of the capacity needs identified by the Agricultural Directorates focused on increased numbers of guidance centers, equipment and training for staff. By setting priorities and allocating funds each year, these centers can be built over time. However, using alternative tools in combination with guidance centers provides multiple methods for outreach. In addition, through guidance centers and farmer groups, the agricultural directorate may sponsor field days and demonstrations that showcase good agricultural practices and implementing prioritized issues and practices.

Evaluation of Extension Plans. The fourth component of an agricultural extension plan is to evaluate the results of activities. For agricultural directorates, it will be important to review the issues identified, the activities conducted and the results achieved. Programs must be evaluated at four levels:

- Through surveys and production or pest control estimates, did farmers adopt new practices and were they effective. Did this impact farmer incomes?
- Based on farmer feedback and after action reviews, which methods for delivering information were most effective to farmers. Which were least effective.
- How inclusive were outreach efforts to women and youth
- What are the lessons learned and emerging issues to be included in the next season.



Agriculture Directorate Capacity Development Needs

Support Needed	Capacity Building Activities Identified by Agricultural Directorates	Priority
Planning for Agricultural Support Activities	Strengthen goal and objective setting and planning against budgets to set achievable annual targets Technical assistance and training required	High
	Training on project planning and management	High
	Training on management problem identification and challenges	High
Technical Assistance to Support the Wheat to Bread System	Technical training and specialized personnel in plant and animal production	Medium
	Training on training and extension process and methods for technology adoption	High
Finance and Accounting	Introduce computerized accounting programs and systems and train staff in bookkeeping and accounting	
Infrastructure development for agricultural advisory services	More buildings and extension centers in villages that have the tools and equipment for extension, transportation, furniture	Medium
	Training rooms set up with training support equipment and visual aids	Medium
	Laboratories to support livestock health, crop production, food safety and soil and water analyses	
Equipment requirements	Training equipment (Laptops, projection equipment, color printers for brochures, stationery) Computers, Digital cameras	Low
	Laboratory equipment and tools to support lab infrastructure	Low
	Establish greater use of computers, modern programs and development of networks that serve the department	Medium
	Digital equipment to support data collection, information sharing, photography, surveys and establishing GPS coordinates	
Personnel	More trained extension personnel to provide advisory on crop production, livestock production, pest control	Medium
	More trained technical specialists in agricultural disciplines	Low
	Laboratory managers and technicians trained in laboratory analyses, using and maintaining laboratory equipment	
Other Capacity Needs	International training opportunities in technical topics, agricultural services management, planning and capacity building	High



Application of agrochemicals using a spraying tractor (Photo Credit: Valdorf, Dreamstime.com)