



**Best Practices in Egypt:
Mobilizing Agricultural and Irrigation Extension Workers**



The CATALYST Consortium is a global reproductive health and family planning activity initiated in September 2000 by the Office of Population and Reproductive Health, Bureau for Global Health of the United States Agency for International Development (USAID). The Consortium is a partnership of five organizations: Academy for Educational Development (AED), Centre for Development and Population Activities (CEDPA), Meridian Group International, Inc., Pathfinder International and PROFAMILIA/Colombia. CATALYST works in reproductive health and family planning through synergistic partnerships and state-of-the-art technical leadership. Its overall strategic objective is to increase the use of sustainable, quality reproductive health and family planning services and healthy practices through clinical and nonclinical programs.

Mission

CATALYST's mission is to improve the quality and availability of sustainable reproductive health and family planning services.

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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THE NEED

In Minia Governorate in Egypt, more than 81% of the population lives in rural areas and the majority of the population is involved in farming (DHS 2003). A study conducted by TAHSEEN in 2004 concluded that farmers do not have a strong understanding of many reproductive health and family planning issues. Nearly three-quarters do not know the birth spacing interval associated with least health risk to the child. Only about 40% are aware of injectable contraceptives, and half are unaware that it is possible to contracept immediately after a delivery, miscarriage, or abortion. Two-thirds of farmers do not know that women who become pregnant under the age of 18 or over the age of 35 are at higher risk, one-third believe it is appropriate for girls to marry under the age of 18, and nearly 60% are in favor of female genital cutting. One-quarter of male farmers cannot identify any possible maternal health problems, and only one-third know how many antenatal care visits their wives should obtain. There is great confusion among male farmers about the contraceptive effects of breastfeeding, and nearly half are unaware of the benefits of colostrum or when an infant should begin receiving complementary foods. Finally, male farmers have very little knowledge of how to identify a sexually transmitted infection.

According to TAHSEEN's research, men in Egypt acknowledge their serious responsibilities toward their families, but most consider family health to be the concern and responsibility of women. Yet in many instances, men determine whether a family is able to make healthier choices: about the timing and number of births (especially if the husband has a strong son preference); whether a daughter continues her education; when a daughter is to marry; whether to choose female genital cutting; whether their wives receive emergency maternal care or postpartum support when they need it. It is therefore essential to find ways to educate men about healthier options so they can be an even greater positive support to their wives and children.

THE TAHSEEN SOLUTION

Farmers in Egypt are served by both agriculture and irrigation extension workers, who visit them weekly, offering information, tools, and skills farmers need to become more productive and efficient. As such, these extension workers have strong credibility with farmers, credibility they have built over years of collaboration: they are seen as valuable experts and sources of important new information and ideas.

Using a well-established infrastructure, each *agricultural extension worker* in Minia Governorate covers approximately 100 Feddan (4200 square meter) of land, bringing him into regular contact with approximately 400 farmers. Collectively therefore, these workers have the potential to reach approximately 40,000 farmers throughout the governorate. Agricultural extension workers teach farming skills in the field, at the agriculture cooperative, at clinics, or at farm schools, usually to groups of farmers. Female extension workers offer the same technical assistance to farmers but also reach

out to their wives in order to teach them about livestock management, home industry and other topics. *Irrigation workers* have more strategically defined catchment areas, chiefly around Nile-fed irrigation canals. They form Water User Associations of farmers who share an irrigation pump, teaching collective pump water management and helping farmers to develop a governance process for collective decision-making. Governorate wide, these two cadres of extension workers have access to even the most geographically isolated farmer. In addition to reaching full-time farmers, extension workers interact with part-time or seasonal field hands and occasionally with widows or farmers' wives.

TAHSEEN partnered with the MOHP, the Ministry of Agriculture (MOA), and the Ministry of Water Resources and Irrigation (MWRI) to find ways to apply this model for the first time in a uniquely Egyptian manner. This was the first time the MOHP ever partnered with either of these ministries.

Collaboration to design the program. To develop the program, TAHSEEN first sought the expertise and collaboration of a range of MOA and MWRI personnel—from governorate-level ministry undersecretaries to field supervisors and actual extension workers. The governorate undersecretaries, who are responsible for all agriculture and water activities in the governorate, were both extremely supportive and provided all necessary political and logistical support. Their involvement was essential from both an implementation and a sustainability perspective. At the local level, TAHSEEN involved supervisors and extension workers in the design process to make sure that program activities were feasible, appropriate, and relevant to extension workers and their clients.

Creation of a training curriculum. TAHSEEN conducted a training needs assessment with a sample group of extension workers to determine their health knowledge and attitudes, and used the information to develop a draft curriculum. TAHSEEN then gathered the MOA, MWRI, and MOHP in a three-day workshop to review the draft and make suggestions for revision; partner NGOs also attended in order to offer their feedback about what was likely to work on the ground. The curriculum that was finalized as a result of these inputs includes units on the objectives of Egypt's reproductive health and family planning program, elements of behavior change communication, reproductive health and family planning issues at different life-cycle stages—such as breastfeeding, child health, adolescent health, early marriage, optimal birth spacing, antenatal care, and maternal health—sexually transmitted infections, gender-based violence, female genital cutting, and the ways men can be constructively involved in reproductive health and family planning decision making. It is designed to both expand the reproductive health and family planning knowledge of extension workers and build on their ability to discuss these topics with farmers.

To make reproductive health and family planning concepts more compelling to farmers, TAHSEEN and its partners developed several farming analogies and included them in the curriculum; for example:

- *Optimal birth spacing* is like crop spacing. When planting corn, seeds are best spaced 25 centimeters apart. Seed spacing ensures that crops are properly nourished and grow to their fullest potential.

- *Antenatal care* is like the checks a farmer regularly conducts of his crops so he can nourish the plants with water and detect any worms or diseases that might damage the health of the plants.
- *Early marriage and pregnancy* is like planting wheat at the optimal time. If a farmer plants wheat too early in the season, the harvest will not be robust. Wheat must be planted at the right time for the best crop.

Training of extension workers. TAHSEEN tested this curriculum with 20 extension workers, and, in July 2004, conducted a first official training for 30 extension worker supervisors (of whom 10 were women). MOHP doctors assisted with this training, sharing their knowledge of anatomy, physiology, contraception, and other topics. Based on their level of participation, their communication skills, and their posttest results, one half of the trained supervisors were selected to become future trainers and given additional training. Five of these trainers assisted in the training of 30 extension workers in Minia in August 2004. An equivalent supervisor cadre did not exist for irrigation extension workers, so TAHSEEN trained four Minia irrigation workers directly.

Support for extension workers as they counsel and educate farmers. Once trained, agriculture extension supervisors are asked to offer seminars for groups of farmers monthly on their own or sometimes in collaboration with physicians and community outreach workers; extension workers are asked to publicize these events with farmers. Each month, teams cover a different topic in their sessions—for example, in November 2004, they discussed the potential benefits of optimal birth spacing, while in December 2004, they discussed antenatal care. The topics discussed during these meetings were raised at the same time by religious leaders and literacy instructors working with the TAHSEEN project. This reinforces key messages, creating the kind of momentum that is needed to have a deep impact on community norms and practices. Cross-fertilization will continue as extension workers will soon begin mobilizing farmers in Minia to attend literacy classes, which, as noted above, also share reproductive health and family planning information with their students.

Each member of the team leading these seminars has an important role to play: the physician, when available, discusses the medical aspects of a recommended practice; otherwise, the extension worker conducts the seminar on his own, the community outreach worker provides information about modern methods of family planning; and the extension worker offers analogies between farming and the reproductive health and family planning practice under discussion. All three are available then to answer the audiences' questions and to refer audience members to their local clinic.

Extension workers have flash cards available that they can use during these seminars with individual farmers. These materials contain illustrations and key information. Use of print materials helps farmers retain the information provided by extension workers, and at the same time, helps ensure that extension workers offer consistent information. TAHSEEN soon learned that to be most effective, extension workers needed additional feedback and follow-up. For this reason, TAHSEEN developed monthly refresher

sessions delivered at TAHSEEN office in Minia. Also, the MOA, MWRI, and TAHSEEN established a supervisory committee to observe field activities.

RESULTS

Agricultural and irrigation extension workers are conducting educational sessions.

After six months of operation, eight extension supervisors had each conducted 16 seminars per month, for a total of 768 awareness-raising sessions, for a total audience of approximately 15,360 participants. By April 2005, TAHSEEN had a team set up in all 3 governorates and expected that all of its trained extension workers would conduct 400 sessions per governorate per month.

Farmer's knowledge is increasing. A comparison of pre- and posttests of farmers who attended these sessions (the posttest was conducted about one month after the sessions) shows knowledge gain and attitude change. Before the session, for example, only 27% of farmers could identify the optimal spacing interval (three to five years); after the seminar, 96% of farmers were able to identify the interval. Awareness of specific contraceptive methods and knowledge of the potential benefits of birth spacing also greatly increased.

Table 1: Farmers' Knowledge of Potential Benefits of Birth Spacing Before and After Community OBSI Awareness-Raising Session (n =1,605)

Message	Before	After	Chi-square	P value
Knowledge of OBSI (3-5 years)	29	74	653.74	p < .001
Health benefits to the mother	25	96	1,694.13	p < .001
Economic benefits to the mother	16	83	1,440.17	p < .001
Health benefits to the children	24	95	1,680.11	p < .001
Economic benefits to the children	15	78	1279.90	p < .001

Program success and acceptance led to rapid replication. Initially implemented in just five communities in Minia Governorate, the program is now operating in 24 Minia communities and 14 communities in Fayoum Governorate.

