

Organizing Afghan Women to Generate Income from Poultry

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Abstract: *Income generation and food security are a critical concern in Afghanistan today. Afghan women are particularly vulnerable and have experienced discrimination and exclusion from access to public resources for many years. Village poultry production is a culturally acceptable practice for women that address both the food insecurity and income generation needs of the household. Poultry provide scarce animal protein and can be sold or bartered to generate income. The RAMP/FAO Project developed an innovative organizational structure that enables village women to receive poultry training, production inputs, and market access on a sustainable basis. The structure is a network of women that link village producers, through district Poultry Producer Groups, to the provincial center where there is a technical resource base that supplies inputs and market opportunities. As of November 2005, this three year project trained 21,364 women in poultry management and organized 850 producer groups. Training and organizational development has led to an increase household income for the 15,511 women producers with hens producing eggs to be valued at \$1,406,432 or \$90 per family. Egg production is about 2,545,281 eggs per month and the value of these eggs estimated to be \$311,032 or about \$20 per producer per month. Project results demonstrate that village women can be organized into an effective marketing network that links women poultry producers to urban markets and improved poultry production practices can generate income and provide high quality food nutrients to village families on a sustainable basis.*

Background

Income generation and food security are a critical concern in Afghanistan today. Nearly three decades of conflict and instability have led to the destruction of much of the nation's infrastructure and human capital, resulting in food insecurity for large portions of the population. Large segments of the rural population can neither produce their household food needs nor earn enough cash income to meet basic needs. Afghan women, especially widows, are particularly vulnerable and have experienced discrimination and exclusion from access to public resources for many years. The newly elected Government of Afghanistan has established a record of commitment to advancing the position of women, and to goals of gender equality and equity.

Afghanistan is traditionally an agricultural society and agricultural production is largely a household activity, with women and children undertaking important roles alongside men in crop production, horticulture and the rearing of livestock. Women live within family compounds, often for most of their lives. Within the compound walls women manage livestock (chickens, dairy cows), small orchards (nuts, fruits), bee hives and gardens. Women also translate agricultural and livestock output into enterprise opportunities – weaving wool from sheep into carpets; making jams, drying fruit, tending bees and selling the honey. Men often market the women's produce and tend the field crops and livestock outside the family compound.

The principal gender goal of the United States Agency for International Development (USAID) supported Rebuilding Agricultural Markets Program (RAMP) is to ensure that Afghan women and men are integrated in all of its market activities to fully maximize the human capital needed to raise incomes and consumption levels in Afghanistan. The reality is that both women and men are part of the agricultural production cycle in Afghanistan. Rural women in Afghanistan are an integral part of the informal economy and an important element of agricultural value chains. There is very little that is produced on the farm that does not involve both men and women.

In Afghanistan, women's role in agricultural production is shaped by the life cycle of the household, the physical site of fields, and other tasks that women perform during the agricultural year. The supply of adequate labor within the household sometimes means that women do not have to work in cultivation outside the family compound, however, vulnerable women (widows, women with disabled husbands, etc.) often do have to assist with the production of labor-intensive crops. At the same time, it is critical to recognize that men's agricultural activities such as land preparation, planting/sowing, and fertilizer application are usually completed within a specific time frame, while women's agricultural activities such as weeding are recurrent, daily activities that last from the time the seed is planted to harvest time. Even though women may spend the same amount of time on agricultural activities, women's work tends to be less visible, non-monetized, and much less rewarded than men's work. RAMP seeks to address this imbalance by including women in the full value chain of agricultural production and marketing.

Targeting income generation activities for women should begin with an assessment of those economic opportunities that have multiplier effects on the welfare of their immediate and extended families. Women in poor households, or households with a low worker/dependent ratio, tend to participate in more agricultural tasks outside the home. Most rural households keep

livestock, mainly for domestic consumption of meat, milk, wool, eggs, etc., and occasionally for sale. Women and children are the main tenders of animals. Boys are usually in charge of taking the animals for grazing while women and girls collect fodder. While women have a significant responsibility for animals, their livestock management in most areas is centered in the home, taking care of newborn and sick animals, milking, collecting fodder and stable feeding.

Village poultry production is a culturally acceptable practice that addresses both the food insecurity and income generation needs of the household. Poultry provide scarce animal protein and can be sold or bartered to generate income. For example, eggs are an ideal complementary food for children in that they are a hygienic source of high quality protein and vitamin A. Poultry also provide manure for fertilizer use on household garden plots. Village poultry require the lowest capital investment of any livestock species and production can begin in a relatively short period of time.

Most poultry in Afghanistan, like many developing countries of the world, are maintained as backyard flocks and can be characterized as a scavenger system of production. The next section of this document defines four types of poultry production systems in order to understand how traditional scavenger systems can evolve into more productive systems.

Poultry production systems

Poultry production systems evolve or transition over time due to the prevailing conditions in a given country. Conditions include macro and micro-economic factors, availability of appropriate education and support services, and market demand for products. The following four types of systems are defined in general terms (Chart 1) to help the reader understand the basic requirements of one system transitioning to a more intensive system.

1) Backyard scavenger system.

The primary poultry production system in Afghanistan is by far the traditional backyard system where women raise small numbers of domestic fowl for home consumption while small, mostly seasonal surpluses are sold in village markets. Birds scavenge around the household for whatever source of food they can find. Flock size is usually less than 10 birds and hens each produce about 60 eggs per year. Domestic fowl, compared to improved breeds, are relatively disease resistant; however mortality rates are high due to a lack of knowledge and veterinary services. This backyard system is defined as an extensive system, whereas commercial systems are defined as intensive systems.



2) Semi-scavenger system. A semi-scavenger system is the next step in the transition towards commercial poultry activities. In this system, dual purpose birds (bred for meat and egg production) are managed in rudimentary housing with basic equipment, are supplied with at least fifty percent of their feed needs, and receive medications. Flock sizes range from 10 to 150 birds with mixed breeds and average egg production in the range of 125 to 150 eggs per year. The RAMP/FAO poultry improvement project trains women poultry producers in poultry management practices appropriate for a semi-scavenger system.

3) Semi-commercial system. A semi-commercial system transitions the poultry producer to more intensive management practices. Typically, these systems are small-scale and range in size from 500 to 5,000 birds that are housed in total confinement and are provided with all of their feed needs. This system is usually utilized by producers that have transitioned from semi-scavenger systems and have developed their management capabilities, found market outlets for their products, and can obtain working capital for purchasing their feed needs.

4) Commercial system. Commercial systems are large-scale production operations utilizing capital intensive equipment and technologies. These systems often vertically integrate production, processing, hatchery, and feed mill functions into a self contained and independent system.

Issues

What are the priority issues that must be addressed in order to facilitate the transition of rural scavenger poultry production to a semi-scavenger production system by Afghan women?

Afghan women lack technical knowledge in the following four fundamental areas:

- Appropriate feeding programs
- Disease prevention
- Managing input supply (feed, medications, and vaccines)
- Marketing of products

These needs can be addressed through:

- Production of appropriate technical reference materials for illiterate beneficiaries
- Effective training programs conducted by women
- Active extension services
- Organization of poultry producers for training, input supply, and marketing

The RAMP/FAO - Afghan women poultry production project.

The USAID funded, RAMP/FAO – Afghan Women Poultry Production (Project) project is carried out by women trainers for village women. It includes intensive training of at least 25,000 village women over a three year period, the provision of improved breeds of chickens, regular vaccinations, improved chicken housing, and sustainable development of input supplies, and the establishment of marketing networks for poultry products.

The RAMP/FAO Project is a three year endeavor that began in early 2004. The Project is divided into six training cycles of six months that will train and support 25,000 women poultry producers directly and another estimated 15,000 women poultry producers indirectly by July 2006. The Project selects 25,000 women who participate in training who are then supported by the provision of twelve chickens, feeders, drinkers, and materials to improve chicken coops. The following implementation steps are followed by the Project:

- Survey target villages to identify and select beneficiaries based on given criteria. Priority selection is given to poor families and widows.
- Intensive training of village women through individual and group training.
- Construction of improved chicken coops and supply of feeders and drinkers.
- Provision of twelve crossbred pullets.
- Regular vaccination and medication campaigns for participants and other village chickens.
- Organization of Village Poultry Producer Groups and selection of group leaders
- Ensure trainees' contribution (20% of costs) for a Group revolving fund.
- On-going training to strengthen Group management capabilities.

Project management.

The RAMP/FAO Project is staffed with an International Poultry Advisor with overall responsibility for management of technical and financial issues, procurement of material and reporting. National Poultry Advisors are based in the provinces where they direct technical and operational supervision and monitoring of the field activities, training of technical staff, and assisting the International Poultry Advisor. The provincial advisors are assisted by Poultry Monitors with one monitor based in each of the target provinces to provide direct technical and operational support and supervision of the Poultry Trainers. The provincial support staff members are responsible for the collection of performance data, organizing and supporting the Poultry Producer Groups, and the supply system.



There are 25 teams of four trainers, to implement the training program and provide direct assistance to the Poultry Producer Groups, collect baseline information and performance data, and reporting to the Poultry Monitors.

There is an administrative and logistic support staff member in each target province and one data entry clerk in Kabul, to assist with supply of inputs, organize feed production and distribution, and reporting to the Poultry Monitors. Management and coordination of Project

activities is arranged through regular meetings of the Poultry Trainers with the Poultry Monitors (at least once a week) and the Poultry Monitors with the Poultry Advisors (at least once a month) and frequent field visits of the supervisors.

Implementing Partners (IPs), all local non-governmental organizations, were engaged to recruit and deal with administrative matters of the technical staff based in the target provinces (Poultry Trainers, Poultry Monitors and Support Staff); to organize the transport and operation of the Poultry Trainer in the villages and the supply and assistance of the Poultry Producer Groups. The Implementing Partners also organize the production of mixed feed and supervise and monitor the financial issues of the Poultry Producer Groups.

Organizational Structure and Implementation Process

The Project developed an innovative organizational structure that enables village women to receive training, production inputs, and market access on a sustainable basis. The structure is actually a network of women that link village trainees (producers), through district hubs (Poultry Producer Groups), and on to the provincial center where there is a technical resource base that supplies inputs and market opportunities.

How do you train thousands of village women on a regular and sustainable basis?

Train-the-trainers. The Project contracts with a provincial Implementing Partner for the delivery of specific services. One service is the organization and implementation of train-the-trainer workshops. Trainers of trainers are all women who have been trained by FAO poultry experts. All trainers receive technical and orientation training from their supervisors before their first assignment to the target villages, and then receive refresher training during the second and third year of the Project. This training includes instructions for using participatory methods for organizing home based training courses.

The organizational structure includes teams of four female trainers who carry out the training of the village women with each trainer responsible for 50 trainees (village women). Each team has a designated team leader who is responsible for all work in one

district. The Project is in the process of establishing poultry development activities in five provinces that include 25 district teams (five districts teams per province) and thus 20 trainers per province or four trainers per district. This means that on average 200 village women will be



trained per district. The district teams operate from the provincial center where the Project has established a central administration office and all five teams of trainers within a province are supported and supervised by a Poultry Monitor.

During the first six months of the Project, activities started with 10 district teams and 40 trainers, training 2,000 women. During the second half of the first Project year the number of trainers was doubled to 20 teams (80 trainers) and the final number of 25 teams (100 trainers) for 2005 and 2006. This progressive evolution of training capacity leads to 25,000 trained women over the three year life of the project. The estimated number of beneficiaries and implementation training teams of four trainers each are presented in Table 1.

Table 1. Number and Location of Beneficiaries

Province	2003 (6 mo.)		2004		2005		2006 (6 mo.)		Total
	Teams	Trainees	Teams	Trainees	Teams	Trainees	Teams	Trainees	Trainees
Ghazni	2	400	4	1,600	5	2,000	5	1,000	5,000
Helmand	1	200	3	1,200	5	2,000	5	1,000	4,400
Kunduz	2	400	3	1,200	5	2,000	5	1,000	4,600
Nangarhar	2	400	5	2,000	5	2,000	5	1,000	5,400
Parwan	3	600	5	2,000	5	2,000	5	1,000	5,600
Total	10	2,000	20	8,000	25	10,000	25	5,000	25,000

Expanding the training network into an input supply and marketing network.

After the initial training period of 5-6 months the relationship between the trainees (village women) and the Project is maintained and further developed through the team leaders of the Poultry Producer Groups (PPG) which are visited by the trainers at least once a week.

The team leaders are the key to network development and play a pivotal role in marketing poultry products in urban centers. Team leaders are village women who are selected from among the trainees and by the trainees. They have demonstrated that they are respected by their neighbors and able to visit other poultry owners in the village freely. The team leaders are also able to travel to urban centers to conduct procurement and marketing activities on behalf of their producer group.

In order to ensure continued development of the network, the team leaders receive additional advanced training in disease identification and treatment, and instructions on how to keep financial and other records. Important services, which are required on a continuous basis, are the supply and application of vaccines, the supply of mixed feed, and the marketing of eggs. Vaccines and important medicines are stored by the Project in the provincial centers and made available to the PPGs upon request. Small feed processing centers with a grinder and mixer have been established in all five target provinces to produce mixed feed for sale to the Poultry Producer Groups. After the first six months all inputs and services (feed, vaccines, and medicines) are provided to the village poultry producers on a cost basis. Money collected from the trainees for the distributed pullets is used as a revolving fund to start the operation of the Poultry Producer Group.

Poultry Producer Groups – empower networked women to conduct business

The Project staff, in particular the leaders of the training teams, the provincial poultry monitors, and the Poultry Advisors, assist and guide the PPGs to establish contacts with shop owners in the provincial centers for the marketing of eggs. There is a real economic incentive for the team leaders to provide the on-going services described above: they receive a payment for services as a fee or a commission for the marketing eggs. It is this economic incentive that ensures the sustainability of the network and provides village women with an opportunity to expand production over time.

Market opportunities for locally produced eggs

Afghan consumers prefer locally produced brown shelled eggs over imported white shelled eggs and are willing to pay a 30-40% premium in urban areas for locally produced eggs. This preference is because the Afghan consumer values egg freshness and will seek out farm fresh eggs from vendors. For example, the average retail price for local eggs in Kabul was \$1.28 per dozen and the average retail price for imported eggs in the same retail shop was \$0.82 per dozen. The premium for local eggs in the Kabul retail market was therefore 36% higher than imported eggs at the time of the survey (February 2005). This survey also found that retailers have a higher gross margin on the sales of local table eggs (\$0.223 per dozen) than on the sale of imported table eggs (\$0.127 per dozen). This is likely due to both the larger sales volume of imported eggs and the irregular availability of local eggs. Retailers reported that they sell about 12% local eggs and 88% imported eggs.

Security in Afghanistan is a real issue

Proper security conditions are an important requirement for the implementation of the Project activities. For this reason, the women trainers cannot be based in the villages or district centers and have to operate from the provincial centers. This arrangement increases transportation cost but is absolutely necessary. The implementation of Project activities however requires that the women trainers travel and work almost daily in the countryside. Complete understanding, cooperation and full support from the district and village authorities and from the villagers seems to be the most important factor to guarantee secure working conditions for the women trainers. The use of local (provincial) Implementing Partners also helps in that respect as they are not viewed as outsiders. It is not possible to predict the exact security conditions over the wide Project area and during the three year period. The Project design allows shifting activities to other districts or provinces if necessary, as considered on a case-by-case basis.

The working environment in Afghanistan requires a flexible response to changing conditions especially with respect to security. The Project is designed in modules and training is carried out in repeating cycles. In case of unanticipated problems the design of the Project allows that activities can be easily moved or reallocated to other locations within the target Provinces/Districts or other locations without major risks to achieving the overall objectives.

Results and Discussion

The impact of the RAMP/FAO Project can be described in a number of quantitative and qualitative terms. Measures of project success and impact are presented below in three forms. The first form quantifies project outputs, the second is a characterization of the knowledge gained by village women as determined through a survey, and third provides estimates of economic benefits for village women beneficiaries.

Project output metrics as of November 2005 include:

- 21,364 women trained in poultry management
- 203,926 pullets distributed
- 850 producer groups established
- 773 producer group revolving funds established
- 935,353 vaccinations administered
- 5 feed mills established

Evidence of knowledge gained from training.

The RAMP/FAO Project conducted a survey of 534 village women one year after their training was completed. In terms of knowledge gained for managing poultry by the village women the survey found:

- 72% keep the poultry coops in good condition
- 97% use the improved feeders
- 95% use the improved drinkers
- 79% had feed in the feeders
- 98% used improved feed mixed with kitchen waste
- 92% had water in the drinkers
- 65% had clean litter in the coop
- 80% of the coops had nesting boxes
- 89% provide regular vaccinations
- 96% of the coops had no external parasite infestation
- 86% had production of more than 50%
- 97% are interested in expanding the number of chickens.

This survey clearly demonstrates that village women have significantly improved their knowledge of poultry production and have successfully transitioned their backyard scavenger system to a more profitable semi-scavenger system. These findings would indicate that village women have achieved a level of sustainability of the activity and a real desire for expansion of the number of chickens in production.

Project impact metrics related to poultry production and income generation, include:

- Average producer maintains 9.9 hens out of 12 through laying cycle

- Average mortality rate 1.1 out of 12 or 9% mortality through laying cycle
- Average 8 additional hens added to flock with own resources
- 1,795 eggs produced per laying cycle (target 1,800)
- 818 eggs sold per laying cycle (target 900)
- 46% of eggs marketed and thus 54% consumed

Increased household income for the existing 15,511 families (as of November 2005) with hens producing eggs was estimated to be valued at \$1,406,432. This sum includes revenue from about 13,146,660 eggs and 6,827 culled pullets. This calculation was made as follows: A total of 15,511 village producers have hens producing eggs, of which 4,000 producers are considered to have produced 1,795 eggs; another 2,000 producers produced 1,490 eggs; 7,411 producers produced 396 eggs; and 2100 producers produced 120 eggs. The total egg production from all of these producers is estimated to be about 2,545,281 eggs per month and the value of these eggs calculated to be \$311,032 (2,545,281 eggs valued at \$0.122 per egg) or about \$20 per producer per month. Note that on average only 46% of the eggs produced are sold, thus nutritional benefits of the other 54% of the eggs consumed must be considered.

The overall Project results described above demonstrate that village women can: be trained in fundamental poultry husbandry techniques, organize into an effective network that links poultry producers to urban markets, establish economic incentives for team leaders to facilitate market access and input supply; and generate income and provide high quality food nutrients to village women on a sustainable basis.

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