

APPENDIX F

Draft Report

Horticulture Market Survey Production Capacity University of California, Davis Horticulture Market Assessment Project Kevin T. McNamara Purdue University June 18-22, 2003

Afghan agriculture performance continues to be mixed. Limited data on aspects of input supplies, production systems and product marketing is systematically available. Discussions with university, ministry, NGO, donor country personnel as well as farmers provided a general overview of the state of the agricultural system in Afghanistan. While there are clearly successes in rehabilitation of agriculture production systems, the state of the country's production capacity appears weak. Data about the state of production systems, technologies, agriculture services, and product quantity and quality were collected from discussions with university faculty, Ministry of Agriculture personnel, NGO personnel, producers, retailers and wholesalers. Field visits trips to three regions north of Kabul also were made to observe production systems.

Producers tend to use traditional technology with unimproved or old plant material. While some producers appear open to adoption of new technologies—from plant material to production practices—producers generally have little education or capital. They tend to favor practices and varieties they know. Recent examples of NGOs distributing poor quality seed and varieties not appropriate for Afghan production regions re-enforce farmers' instinct to rely on tradition. Additionally, producers, retailers, wholesalers, and agricultural professions in general expressed a belief that Afghan varieties (such as pasticcios and almond) are superior in quality and taste than varieties grown in other markets. They believe that their varieties can compete favorable on domestic and world markets. It is an open question as to how Afghan products compete in regional and other markets with local varieties given market preferences. Yield and production cost data are also unavailable. Consequently, profitability of Afghan products or their cost effectiveness as compared to other plant material cannot be evaluated.

Precipitation, irrigation, seed, and fertilizer are among the factors constraining recovery. Agriculture services, particularly agriculture extension and credit facilities, have been very slow to recover. While there are clear examples of success with seed and fertilizer distribution, there also examples that adversely impact agriculture with poor/inappropriate seed and/or low quality fertilizer. There are examples of successful interventions to reconstruct and rehabilitate irrigation systems. There also are attempts to improve irrigation through locally innovative technologies that utilize water resources more efficiently that complement efforts to rehabilitation of canal, karez and other traditional systems. However, there was no systematically collected data related to re-habilitation of land and irrigation resources.

Data on recovery of fruit and nut production capacity is limited. Ministry of Agriculture staff indicated that data were being collected in cooperation with an FAO horticulture industry survey. University faculty suggested that much capacity had been destroyed by the Soviet forces in the 1980s, and more in the 1990s during the civil war and as a result of drought. In areas north of Kabul evidence of orchard destruction from Soviet occupation is still evident with scorched earth dotted with stumps of trees cut at ground level. Farmers pointed out other fields in wheat that had been orchard until the Soviets destroyed them.

The transportation infrastructure has an adverse influence on agriculture production. Secondary roads in the Kabul region are in poor repair. On the three secondary roads I traveled in the region north of Kabul, their quality deteriorated with its distance from the main highway. The main highway south of Kabul is still in disrepair, although efforts have begun to rebuild the road. University faculty, NGO staff, and others indicate that the main road to the north is in relatively good repair (there is currently a major re-habilitation effort in the Salang Pass area the limits travel through the pass to evening hours). However, they indicated that the secondary roads in the north, as in the south, are in a poor state of repair. The road system as well as the state of transport vehicles adversely impacts input supply as well as product market access.

Discussion of labor availability suggested concern for some areas. Areas of the country that experienced fighting and the destruction of housing have seen limited return migration of residents. While people are rebuilding rural housing in the areas relatively close to Kabul, there has been some difficulty supporting return migration to some rural areas due to security concerns, destruction of irrigation and housing infrastructure, and drought. Both University staff and NGO staff suggested some displaced rural people who have returned to the country have a strong preference for living in Kabul rather than returning to their home villages. They suggested rural labor shortages might result in some regions as the labor intensive agricultural systems recovers. They indicated, however, that southern regions tended to have much lower out-migration. These regions are still affected by drought, but should have adequate labor available once the drought eases.

Security and safety are concerns raised by several NGO employees. Recent attacks on aid workers in the south, efforts to disrupt Kabul-Kandahar road reconstruction, and the flurry of activity against the IFAS forces and Karzia government in Kabul have heightened security concerns for the international community, both regarding life in Kabul as well as travel outside of the capital. Discussion with Afghans about security for Afghans traveling and living throughout the country suggested some concerns, but the general consensus was that the country was safe and secure for Afghans except in areas with direct region conflict—that is some regional border areas where warlords were fighting to extend regional control. While de-mining is proceeding, the director of the Afghan de-mining program indicated that areas across the country still have active land mines as a result of extensive Soviet era and civil war mining. Live mines clearly impact land availability, but it was difficult to assess the extent to which mines limit utilization of arable land. The de-mining office has an aggressive plan for complete de-mining of the country. However, because level of mining that occurred across the country, de-mining will not be achieved for 8-10 years.

Afghan agriculture production technology tends to be traditional. Land holdings are generally small and farmers are labor intensive substance producers. In several regions, however, farmers utilize some land for horticulture crops that are sold to meet cash needs. Farmers tend to use traditional production practices for grain, vegetable, fruit, and nut production. While improved plant material has been utilized in the past, 25 years of isolation has adversely influence adoption of improved plant material in recent years. Several individuals mentioned that farm record keeping is very limited, both with regard to input costs, labor allocation, yield, and marketing price. Farmers, therefore, have no basis for making enterprise mix decisions to increase farm income. Additionally, it seems that the diagnostic skills of Afghans involved in extension type positions with the Ministry of Agriculture, NGOs or other organizations are very weak. Field agents have difficulty identifying plant problems as disease, pest, stress, etc. Consequently, plant problems receive no or improper treatment.

Marketing systems tend to be traditional. Often production is purchased in a pre-harvest contact by a consolidator or marketing agent, a jalab. Producers lack the resources to finance harvest and marketing. Many lack knowledge of market systems and prices. Consequently, little of the post-harvest value added is earned by producers. Given the current marketing practices, the value added is often earned by Pakistani merchant who buy product from Afghanistan. They sort, grade, and package the product for consumption in Pakistan or for re-export.

Recommendations

1. *The initial focus should be on increasing production to meet growing domestic demand.* Afghanistan is not self-sufficient in food. Efforts should focus on increasing production to meet domestic demand and to compete in regional markets.
2. *Systematic intervention along the marketing system is needed to improve efficiency and quality.* Production and marketing systems in Afghanistan are simple, traditional based systems. Given the attributes of the market, there has been limited emphasis on product quality. The marketing chain procedure and infrastructure—producer to customer—does not support quality.
3. *Demonstration activities for introduction of new technologies.* Afghan farmers could benefit from the introduction of improve plant materials, fertilizer use, new irrigation technologies, and enterprise management technologies. Establishment of *food production and marketing centers* would provide a focal point for technical assistance ranging from production technologies, to enterprise management, to marketing. Coordinated with university education programs and extension activities, such centers could be developed into institutions that would facilitate improved production in the short term well becoming institutions to provide a variety of technical support services—from improved production technology, to plant diagnostics, to management and marketing—in the longer term. Initial activity could focus on new management technologies with existing plant material. Demonstration could focus on introducing commercial fertilizer application, improved irrigation technology, and/or record keeping for managing farming

operations and making enterprise mix decisions. Such centers could increase production (and producer income) while helping producers build capacity to produce higher quality, for domestic, regional and other markets.

4. *Retail/wholesale price data education.* Down stream market information is generally not available to producers, especially as the distance between production areas and markets increases. Price information would help producers negotiate price and would provide market signals related to production mix. It would begin to empower producers by giving them information to aid in production and marketing decisions. Local producer organizations could be developed to assist producers. This function could be conducted in conjunction with establishment of *food production and marketing centers* (item 3) or independently.
5. *Extension/outreach Education.* The general knowledge and skill base of individuals involved in agricultural extension and outreach activities is lacking. Extension personnel lack the skills and confidence to effectively diagnose plant problems in the field, and back up resources for consultation or support are non-existent. A coordinated effort to develop in service training capacity for individuals involved in agricultural outreach (extension, NGOs, other) is needed. This effort should be coordinated with the Faculty of Agriculture at Kabul University to build the long-term institutional capacity for agriculture sector training.
6. *Applied Research.* Afghanistan needs to develop research capability to support agriculture. Re-developing research farm facilities at Kabul University would initiate this process. The facilities could be used to test, adapt, develop, etc, technologies for application to Afghan production systems. It also would be a gateway to integration of applied education to university agriculture education.
7. *Marketing Systems.* Work with the Ministry of Agriculture and NGOs to establish institutions to support the marketing system, such as sorting and grading procedures, storage, processing, credit, cross border customs facilities and so on. There are currently examples of efforts in Kandahar to organize and coordinate post harvest activities in dried fruits and nuts for export. Similar efforts should be explored for other regions, focusing on dominant horticultural crops produced in the area.
8. *Post Harvest Process/Value Added Center.* While some drying takes place, especially with fruits, Afghanistan has limited processing capacity for fruits and vegetables. Establishment of a center for developing and adapting processing technologies for locally produced food products would support development of the food system to provide increased producer income as well as develop domestic industries to begin to compete with imported processed goods. Such an institution could be established as a unit within the Faculty of Agriculture at the University to draw on university resources and provide a training lab for students interested in the food industry. Alternatively, it could be established as institution coordinating activities with regional *production and marketing centers* (item 3).