

Overview of Key Development and Trade Issues Emerging in Armenia with the Opportunities and Constraints of Organic Agriculture

Brief Issues paper prepared by **Daniele Giovannucci** for International Conference on “Organic Food and Organic Farming in Armenia - Towards Partnership and Sustainable Growth”
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After a short visit to Armenia (including attendance at the organic conference, visits to two organic farms, several meetings and some background research), this brief report was prepared to offer a basic understanding of the current situation and an overview of the future prospects for organics.¹

Brief Summary

Organic agriculture is not the only solution to Armenia’s rural difficulties but it presents a viable approach that can provide some valuable public benefits and can also be beneficial for a number of farmers. It can:

- be particularly useful in the more difficult environments where resources are scarce and cultivation problematic
- potentially reduce risk by: a) “localizing” input production, b) fostering soil and water conservation, c) encouraging diversification and nutrition security
- Improve ability to compete in increasingly globalized agricultural trade that is heavily focused on standards.

Context & Rationale

Despite a probable net reduction in the overall population since independence², there has been a small increase in the number of Armenia’s farming households. Many of these are relatively new and inexperienced farmers with very limited access to capital and farm inputs. Agriculture is the primary employer and accounts for about 28% of the GDP. Yet with few exceptions i.e. some fruits, Armenia is a net importer of foodstuffs. Almost all of Armenia's 338,000 farms are small-scale operations while approximately 130 are larger scale commercial farms and, in recent years, a few cooperatives have emerged along with some entrepreneurial farmers leasing neighboring lands to consolidate economies of scale. Higher value crops such as orchard and vineyard properties average less than 1 ha. per owner. The majority of farms have diversified production including at least two types of animal husbandry (i.e. cattle and sheep or pigs and poultry). Given this scenario that is characterized by poor smallholders using mixed farming systems, organic methods would likely be a viable and useful option for a significant number of farmers.

The potential benefits of organic farming for smallholders are illustrated in an evaluation of organics in Asia (Giovannucci 2005) and other recent studies (Altieri 2002; Diop 2002; Mäder, et al. 2002; Damiani 2003; Parrott 2004). Under the operational conditions of Armenian farmers whose shortcomings in

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² Cited from "The State of Armenian Agriculture" (page 27) unpublished Alpha Plus report noting official and non-official information sources contradicting the 2001 population census.

financial resources, inputs, and support services are coupled with generally modest agricultural skills and knowledge, organic methods could quite possibly improve productivity and reduce their exposure to risk. Because of the organic orientation to high standards and traceability, it can also serve as a step toward improved agricultural management skills that are increasingly necessary for any sort of producer.

Some of Armenia's neighboring countries are showing a similar interest in organics (Ukraine, Romania, Bulgaria, Azerbaijan, etc.) and some have already achieved a measure of success. For example, organic agriculture in Turkey began with just a few products (mostly dried fruits) about 20 years ago and about 10 years ago, organic regulations were approved there. Now, according to the Director of ICEA's Izmir office, Turkey produces more than 170 fresh organic products as well as 300 processed products (2003). Its exports grew from about 8000 tons valued at US \$18 million in 1998 to 17000 tons valued at US \$27 million in 2002 and US \$36 million in 2003.

The potential of organics for better resource management, reduced environmental impact, and poverty reduction also fit with several strategic plans including the WB's Country Assistance Strategy and Armenia's National Environmental Action Plan (NEAP 1998) that identified water pollution, the overexploitation of natural resources, and threatened ecosystems as priorities for action.

Organic Sector Participants

Organics are in their infancy in Armenia and have a long way to go before achieving substantial viability. Though the Ministry of Agriculture has taken a definite interest, the understanding of the issues and the evolution of policies are still in the first stages. A number of public and private institutions now operate in the organic sphere but it seems that they do so in an *ad hoc* manner with little coordination between them. Much of the early efforts in recent years have come with the support of various organizations taking either a quality/economic orientation or a social one.

Several development projects support quality and standards work. Among these are the Armenian-German Development Agency (ADEIGO), DAI's Assistance to SMEs (ASME) market development project (funded by USAID), SME DNC, and the TACIS program. According to the FAO, the WFP and GTZ developed some simple training materials for Organic Agriculture and conducted training seminars in 2002. The USDA's Market Access Program (MAP) was the first to research organic farming options in 2001 and later helped establish the Armenian Organic Agriculture Foundation and Green Lane. Green Lane is an NGO whose mission is to promote the production and sales of organic products by working with more than 50 farms, farming organizations, and a Farm Field School providing technical support with training seminars and consulting to organic farmers. The National Institute of Standards currently accredits nearly 30 certifiers for various products and processes; only one (Ecoglobe NGO) works in organics. Given the low export levels of any agricultural products, facilitating internationally accepted certification and reducing its cost will not be an initial priority.

In the more social realm, the Dutch Avalon Foundation is supporting some modest farming efforts with plans to expand in the next two years. A domestic NGO named "Shen" has a "Promotion of Organic Farming" project that also takes a socially-oriented approach and has planted fruit orchards and vegetables in the Lusakn community of Aragatsotn Marz (38 ha of stone fruits) and 74 ha in the Argina community of Armavir Marz (financed by EPER and some EU donor agencies) between 2002-2004. In 2003, Shen planted 25 ha of organic peach orchards in the Ayrum community of Tavush Marz intending, as with Argina, to eventually turn these over to the community that works there. Shen also helped to establish Ecoglobe, the only organic certifying institution in Armenia.

Currently there are about 10 organic projects working with fish (Aquatechautomatica), dairy (i.e. Agroservice), goat cheese (Presidium producers of Eco-Club Tapan), apples, apricots (Shen and others),

plums, peaches, cherries, and honey (Hyusyan Gurgen) but they are still in transition and only one (Tamara Fruit) has received an internationally recognized organic certification. Tamara sells certified apricot and wild berries mainly into the German market.

A leading Armenian dairy company, Ashtarak-Kat, is in the process of certifying some of its procured milk starting with 10-15 farms with potential to produce various dairy products. It has met difficulties related to contracts for sourcing due to its concern over the considerable certification costs if farmers are free to sell to others.

The Armenian Organic Agriculture Foundation (AOAF) with a mission to coordinate and unite the organic movement in the country as an umbrella organization has not been very active until recently in 2005. Its priorities are: local market surveys; training the trainers (extension workers, and agronomists); developing a domestic information and PR strategy for organics; developing and advocating organic policy and legislation.

Opportunities and Constraints

Armenia's farmers often lack inputs and financing and will require technical support for any farming endeavors regardless of whether these are organic or conventional. Since organic agriculture is knowledge-intensive rather than capital or resource-intensive, it may be well suited to Armenia and especially to its rural poor. Organic production is a condition-sensitive, learning process and so it requires adequate time to be fully learned and adopted; transitions can therefore take several years. Armenia faces some significant challenges for developing organics. These can be summarized as:

- Limited knowledge of organic cultivation practices i.e. field technology, applied research, extension, and farming pilots though that is also the case for much of the conventional production in Armenia
- Strengthening competitiveness based on quality-price factors because simply being certified as organic is no longer enough (includes building a common “Brand Armenia” to help ensure visibility, volume, and even quality controls)
- The need for smaller producers to first develop their local domestic markets; even though these are clearly small. For example -- as countries such as France and Austria have already demonstrated -- providing school lunches and adapting public procurement (government, schools, hospitals, etc.) are ways to develop the sector at low cost while also providing a public benefit.
- Improve verification costs and controls (i.e. certification, accreditation) as well as labeling to ensure organic credibility. For example, there is ample evidence that Internal Control Systems reduce costs and better prepare farmers to manage the many other standards that are increasingly mandated for global trade. For local markets, international caliber certification is a barrier to entry and probably unnecessary.

On the positive side: Semi-arid climate and cold winters can significantly reduce pest and disease pressures making organic methods more easily applicable in the beginning. There has been very limited use of pesticides and other agrochemicals over the last 15 years. Organic certification standards, with a basis in international requirements (Codex Alimentarius, EC, and US), have already been established in Armenia and adapted to national economic conditions. Quality levels for the domestic markets are adequate. There is support at the highest levels of government (President and Minister of Agriculture). The advantage of the close-knit Armenian diaspora could offer the opportunity for high-value foreign sales particularly with Russia where it has a good export relationship and in several other countries where buyers have an interest in Armenia's potential organic products. According to studies and estimates cited

by the Armenian Organic Agriculture Foundation's, certain high value organic products can be produced for export and even sold in Armenia:

Fruit and Berries - apricots, peaches, cherries, plums, apples, pears, walnuts, pomegranates, figs, quinces, tomatoes, strawberries, raspberries, currants, blackberries,

Vegetables - onions, radishes, garlic, asparagus, spinach, peppers, beans, eggplants, carrots, basil, and mint

Herbs and medicinal plants – chamomile, peppermint, saffron, mallow, nettle, St. John's Wort, seabuckthorn, hawthorn, wormwood, and other medicinal plants, herbal teas, etc,

Apiculture products - nectars, royal jelly, honey.

On the negative side: Except for a few crops, it will be difficult to initially achieve adequate volumes and competitiveness. Local market demand is almost non-existent with very little consumer awareness. Many of the supporting institutions are inexperienced in organic development and marketing. Private or public-private investments are needed in supply chains including local processing and storage facilities. There are too few established distribution or sales outlets including retail selling points (farmers markets, shops, and local delivery systems like CSAs). The different projects and organizations working in the organic sector appear to work quite independently and until recently have had few, if any, synergies or coordination of activities.

Recommendations

The Armenian government's 2004 "Strategy on Sustainable Development of Armenia's Agriculture" outlines the goals to reduce rural poverty and migration while focusing on higher value products and food safety. Organic agriculture because of its higher value, traceability, and greater use of rural labor can contribute to these goals. Attention to several areas can facilitate organics becoming a viable choice that farmers can select as an option to pursue.

Institutions - Perhaps the single most important factor for successful organic adoption is the availability of reliable institutional support systems (local and national) that can initially help provide the many components that farmers find difficult to access. These can provide technology, know-how, and even some marketing support. At the government & public sector levels it is important to build capacity and investment in organic research & extension services. This can be tied into strengthening a central public-private body or NGO as a focal point for farmer-friendly knowledge bases and information dissemination and even extension services that can be facilitated on topics such as seeds and other inputs, pest & disease control, and cultivation or quality control methods. Simple credibility assurance systems for both formal certification and local verification will be vital for market development.

Farmer organizations - Farmer organizations are central for any sound organic strategy. The learning process for conversion involves prolonged challenges in meeting standards, certification, and marketing needs. To maintain continuity and competitiveness will require strengthening their internal management capacity and their constituent representativeness. Most NGOs and associations lack the business skills to negotiate the various aspects of marketing, so they need help to organize an apex body or a network of organizations that can then be fortified with professional support and training in order to develop scale economies. It is important to strengthen a farmer's knowledge and bargaining position in order to effectively negotiate with a trader or private sector partner.

Public-private alliances & small farmers - It is not necessary to turn a farmer into a trader. The private sector can readily fill that role. To integrate with private sector requirements, a contract farming can

provide mutually beneficial partnerships between farmers and firms; yet caution is warranted since a firm's goals tend to vary from a farmer's best interest. Without farmer ownership of at least part of the organic certificate and business venture (if any) their equity in contract farming systems is lost.

Strategy – Sectoral development, public investments, and policy support ought to be at least initially coordinated with one credible and representative body in compliance with a master strategy that is approved by most stakeholders. Harmonizing the efforts of various stakeholders will help to improve learning, build synergies, and better use limited resources. One development strategy explores the idea of concentrating initial efforts on specific regions that may be more appropriate for the organic certification process (strong farmer interest, away from polluting industrial areas, lack of synthetic input use, etc.).

This approach maintains that government's interest in intensive agricultural development will likely not be feasible in all areas and that therefore organics can present a different menu of options for remote areas that may be otherwise difficult to develop as intensive production areas. While this may be true, and could be one of the viable approaches, it will be important to not relegate organics only to difficult areas where it is at a great disadvantage in terms of infrastructure, extension, and market access. Doing so would certainly prevent many farmers from seeing whether, in a direct comparison with intensive methods, the costs and benefits of organics make sense for them.

Public Investment - Organics demonstrates a “public good” aspect (resource conservation, biodiversity, soil and water management, etc.), so it would be reasonable to eliminate biases in public expenditures against organics and consider:

- Revolving fund for farmers to access initial financing required for certification and initial investments i.e. vermicomposting, livestock, biopesticide production.
- Integrate organics into public procurement (like Europe where a number of schools, some hospitals, and governments specifically require at least a certain percentage of organic foods if these are available) to stimulate both a base market demand and improve the public information and consumer exposure to organics.
- The Ministry of Agriculture's subsidized distribution and tax exemptions for conventional inputs while inherently biased against organic methods, has benefits that could be in part channeled toward organic extension and support for biological pest controls. Limited-time tax exemption mechanisms applied to value adding activities such as processed organic products can stimulate organic development and motivate supply chain investments.
- Incentives in the form of limited subsidies for initial certification and transition phases.
- Equitable development & consumer protection will require labeling rules similar to those of the US and EU that protect the use of terms like: “organic”, “eco”, or “bio”. Similarly, the development of a common national identification label can facilitate market development and give consumers a clear choice.

ANNEX 1.

Country Visit

The conference on “Organic Food and Organic Farming in Armenia - Towards Partnership and Sustainable Growth” held November 17 and 18 in Yerevan was impressive for both the number and caliber of attendees. The organizers registered approximately 600 people most of whom are involved in private sector agriculture and included NGOs and development agencies. Government was well represented including Mr. Davit Lokian, the Minister of Agriculture, and Ara Petrossyan, Deputy Minister Trade and Economic Development. On Friday afternoon the President Robert Kocharian asked a small delegation of us to meet with him personally in his offices to discuss the potential role and implications of organic agriculture in Armenia. He was quite interested in its prospective for poverty reduction and managing rural farm risk. An overall agenda for the future was adopted at the conference:

- Strengthen Participation of all relevant Stakeholders.
- Promote a national action plan on Organic Farming and Organic Foods with MoA.
- Identify financing and foreign direct investment for sustainable business models open to the whole farming community.
- Train producers in organic technology and educate consumers about organics.

One of the driving forces of the conference was Tierras de Armenia, the corporate entity that led the conference organization and has invested in 2300 ha of semi-barren land with plans to progressively convert segments of it into diversified agricultural production. They intend to supply field crops and high-value horticultural products for both the domestic and export market. The founder, Eduardo Eurnekian, a leading member of the Armenian diaspora, is clearly making a significant commitment to this venture based in part on his personal conviction³. Tierras de Armenia will have some advantages in logistics management stemming in part from the Eurnekian’s airport management concessions. The Tierras de Armenia vision includes building housing and educational facilities for the community that they intend to employ and to disseminate information and training on organic principles to farmers in the area.

ANNEX 2.

Market Growth Rates for Selected Nations (2003-04 estimates in %)	
USA – Canada	15-20
Europe’s Mature Markets (Germany, Netherlands, Switzerland)	5-10
Europe’s Emerging Markets (Spain, Greece, Czech Republic, Hungary, Slovakia)	15-30
World Average	10-15

Source: Author estimations from OTA, Organic Monitor, and IFOAM data.

³ He grows and consumes his own organic chicken and horticultural products.

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