

Comparative Analysis of Agriculture in Georgia, Armenia and Azerbaijan

Executive Summary

The project

The purpose of the research, undertaken between December 2011 and June 2012 was to use a comparative analysis of the agricultural sectors in Georgia, Armenia and Azerbaijan to clarify some of the reasons for Georgia's persistently poor performance in agriculture and to identify effective strategies for encouraging economic development. The summary below is largely focused on Georgia.

The Case for Georgian Agriculture

Today, across the region, there is a strong consensus that agricultural development offers a huge investment opportunity and is also essential for development. This is no longer significant dispute on this issue. Agriculture is considered so important because of its key role in employment, reducing poverty, its potential for increasing economic growth, and ensuring food security.

In terms of poverty and employment, in Georgia 53% of the work-force is employed in agriculture and agricultural incomes are 20% that of salaried work. Therefore increasing productivity of agriculture would be one of the surest ways to increasing incomes generally.

Georgia also has incredibly low productivity compared to other countries both inside the region and outside.

Figure 1: Productivity per hectare in various countries of the world (in metric tones)

	Wheat	Maize	Potatoes	Tomatoes
Georgia	1	1.4	11	8.4
Armenia	2.1	4.7	17	38.7
Azerbaijan	1.9	4.5	14.5	17
Kenya	3.2	1.6	2.9	29.2
Brazil	2.8	4.4	25.3	60.7
France	7	8.9	39.8	98.3

Source: FAO, Crops production statistics 2010 (reviewed April 25, 2012)

This offers an opportunity for growth because there is no inherent reason why productivity should be so low. Georgia has two to three times more rain than Armenia and Azerbaijan, enjoys cheap and alternative sources of energy like hydro-electric power and thermal springs and was a far more productive country than either of the others, under the Soviet Union.

Rising international food prices also highlight the importance of local food production as a potential source of growth, at the same time as highlighting need for local production to cushion the domestic market from erratic international prices, thereby providing food security.

General Issues

Government policy

The project as a whole looks in detail at government policy across each of the sub-sectors, in each of the three countries. A few of the specific recommendations for particular sectors are included in the materials below.

In general, however, the project highlights the need for government policy in Georgia to take a far clearer focus on the mechanisms necessary to improve the situation for small farmers and to do so through market mechanisms.

While the previous government had started to take the sector seriously, after ignoring it for many years, the direction of their policy had three main overall problems. First, it was largely centered on supporting large businesses. The government seems to have taken the position that small farmers are incapable of improving significantly, so instead policy focused on providing the kinds of agricultural equipment, financing and inputs that were particularly useful for larger farmers. However, the structure of the Georgian agricultural system means that this approach will miss the majority of people and will not achieve the employment, poverty alleviation and security objectives that a more comprehensive growth in the agricultural sector could achieve.

Second, in spite of the philosophically libertarian orientation of the government, their attempts to fix market problems was to start government-run companies. The Georgian Agricultural Company, which was the central mechanism through which the government was going to help provide a whole range of inputs and training services, was entirely government run and owned and, as such, was not a long term solution. In the longer term, direct government provision of inputs and agricultural support services was more likely to exacerbate the problem of input supply, by undermining the market.

The correct market-oriented solution to market failures is not for the government to step-in and provide the goods and services directly, but to fix the incentive structures which lead to under-supply. This may involve short-term subsidies, but will generally focus on other market failures like asymmetric information or legislative hurdles to developing new businesses.

Third, the three big structural issues facing agriculture are animal disease, irrigation and land-ownership. Each of these needs a central government solution. The lack of a good animal disease management system, that is properly resourced, continues to undermine all of the meat sectors and dairy. This management system can only be provided by the government. For irrigation, the governments needs to make the investment in infrastructure and then support local water user associations, until sufficient trust in the system is developed to gradually increase charges and make the system self-sustaining. In land useage/ownership, while small land-plots are not a problem *per-se* the government needs to support a national effort to ensure that all land plots are properly registered and to help ensure that communal land is properly managed. Again, leaving this to the markets and individual decisions is unlikely to result in national solution

Market access

Georgia benefits from a fairly open internal market but, without barriers to entry of most agricultural crops, it faces significant international competition. Also, both Armenia and Azerbaijan have benefited from access to the Russian market. In spite of the previous government's statements, it is clear that access to the Russian market would be extremely helpful to Georgian agriculture.

Finally, while shipping costs in/out of Georgia are low compares to Armenia and Azerbaijan, they are internationally high. And barriers at the border through Armenia and Azerbaijan make access to the middle-East (for sheep) far more expensive, as it has to rely on air-freight.

Sector Specific Issues

Meat and Dairy

A huge range of factors influence the success of meat and dairy. However, the biggest single structural factor limiting improvements is the total failure of disease control. The persistence of a wide range of diseases in sheep, cattle and pigs have impacted on each sector. In sheep, disease is the one factor that could easily destroy a huge and burgeoning export sector. In cattle, disease results in low animal weight and damages milk production. In pigs/pork swine flu wiped out the native stock and fear of its return continues to hamper restocking.

This seems to be an area where liberalization and the desire to 'leave it to the market' has failed. Animal disease control needs a national strategy which both provides vaccinations and tracks/manages outbreaks.

On top of this, the general low-input and low-output model of agriculture in Georgia impacts on meat and dairy production across the board. There is potential for improvements in grazing management, feed-production, education and genetics. The potential for success in some of these areas can be shown by their effectiveness in other parts of the region. However, under-cutting any improvements that might occur is the ever-present concern about disease.

Dairy and cheese (which is a massive part of the agricultural sector in Georgia) have all of the same problems, but also face additional challenges of seasonality of milk production and collection challenges from small farmers. Seasonality of cheese production can be partially alleviated by improvement in the availability of storage, in the case of Georgian factory cheese, but in the case of 'fresher' cheeses, winter demand will only be supplied when milk production in the winter is made possible on a large scale.

For milk and dairy another vital issue is food-labeling. Confusion seems to still exist in the market over whether products are made from entirely Georgian milk or whether they contain imported powdered milk. Ensuring 100% clarity on this issue would be very helpful for local producers.

Beef/lamb

In Georgia, there has been a shift from local consumption to a mix of live animals export and imported frozen meat. The same has happened in Armenia. This rise in exports is largely the result of increased demand in Azerbaijan (for beef) and increased demand in the middle-East for live sheep (resulting from problems in supply in Australia and New Zealand). In Georgia prices have also gone up along with world prices and increased abattoir charges.

Generally the shift from local consumption to export/import mix is a good combination that gives farmers higher prices without creating as much pressure on local prices as would exist without imports. It also offers an opportunity for significant expansion in production/export.

Pork

Pork imports and prices have risen significantly and small-farmer pork stocks stay depressed in Georgia and Armenia following the swine flu. In Armenia this is leading to a growth in commercial piggeries. In Georgia, commercial piggeries could also help reduce prices for pork but significant increases in small-scale artisanal production would need improvement in animal health management

Chicken

Chicken imports have increased dramatically into Georgia in recent years and a number of the local commercial chicken producers have gone out of business. In Armenia, commercial chicken production has grown dramatically. The difference seems to be electricity and feed costs which are higher in Georgia, and a more open Georgian market for imports.

Crops/Crop based food

For national productivity to increase we DO NOT need land consolidation, but we DO need improvements in irrigation. Comparative analysis allows us to fairly clearly conclude that small land-plots are not an insurmountable barrier to agricultural development. Therefore, the claim that Georgian farms are just too small to be competitive is wrong. Armenia and Azerbaijan face the same small land plots, but have recovered their productive output a lot faster than in Georgia.

Irrigation, however, is clearly important. Irrigation is essential to all three countries and serves two purposes. First, even in a good year, it can dramatically increase productivity. Second, it can provide security in a bad year. This is important because insecurity, with the possibility of a very bad harvest, is at the heart of Georgia's low-input, low-output model of production.

In Armenia and Azerbaijan, irrigation has improved and productivity has increased while in Georgia it has the two have stagnated together. The main difference is the structure of water system management. In Armenia and Azerbaijan, the World Bank instigated an irrigation project that developed farmer-based water user associations for local maintenance and fee collection. In Armenia this seems to have been particularly successful. In Azerbaijan this is probably still far too dependant on government subsidies.

In Georgia, the former government rejected this strategy and took a more private-sector-oriented approach working through large irrigation management companies, but these have never managed to raise collection rates and so have lacked the funds to maintain the system – maintaining the vicious cycle of structural collapse.

Similarly, international comparison suggests the impact that forward priced contracts and education can have. A number of large food producers/exporters, particularly in Armenia, have changed the confidence with which farmers can rely on prices and has led to increases in investment and increases in output. Similarly, Armenia has been far more aggressive in developing its agricultural education – and there have been clear pay-offs for this, in increased productivity in a number of fruit and vegetable areas.

Changing patterns of crop production

In Georgia, potato production increased by about a third in the last four years following 6 years of flat production while tangerine production grew and watermelons have shown 8-11% annual growth in the last decade. Wheat, maize, grapes, tomato and cabbages have all suffered a steady decline in output. This uneven picture seems to reflect the variable help that is being offered in this area, with tangerines, mandarins and nuts securing substantial commercial investment and potatoes benefiting from support and focus from the international community.

The differences across the region in each of these categories seem to offer illuminating insights into the way in which different factors, particularly forward pricing, access to markets and input prices have affected the different markets in different prices.