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AGRICULTURAL ACTIVITIES AND SUBSTRUCTURES IN ARMENIA

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ABSTRACT

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The Armenian land privatization program is unique among former Soviet Republics in regard to the speed and completeness of its implementation. Armenia is the smallest of the Republics, with a population of 3.7 million, and was left highly dependent on outside sources for energy and raw materials for industries, and grain for its people and livestock. Privatization, began in 1991, was largely completed by 1993. The greatly increased number of individual owners created a need for major restructuring of the industries supplying agriculture and marketing its outputs. Problems in the substructures from technical supplies to storage and marketing are described. Recommendations are for the adoption of policies in the substructural spheres of agriculture that will contribute to the future development of agriculture in Armenia. These policies include improved contractual relations, cooperatives, niche marketing, and restructuring of various service corporations.

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Introduction

The Armenian land privatization program is unique among former Soviet Republics in regard to the speed and completeness of its implementation. This paper provides a status report on the agricultural sector in the Republic of Armenia in the first years of privatized primary agriculture. It also recommends adoption of policies in the substructural spheres of agriculture that will contribute to the future development of agriculture in Armenia.

General Description of Agriculture

Armenia is the smallest of the former Soviet republics and has a population of about 3.7 million people. The break-up of the USSR left Armenia with an economic structure highly dependent on outside sources for energy and raw materials for its industries, and grain for its people and livestock. Starting in 1991, agriculture has had to play an increasingly important role in the national economy as the output of the economy as a whole declined more than the agricultural sector. Agriculture accounted for around 18% of both net material product (NMP) and employment during the 1980's, however, it accounted for 46% of NMP and over 25% of total employment in 1992. Crops with the highest value of production per land area include grapes, other fruits, and vegetables which are grown under irrigation at lower altitudes, particularly in the Ararat valley. A high proportion of agricultural production was exported during the Soviet period in the form of fresh produce, wines, brandies, and processed fruit and vegetables. Agricultural exports accounted for roughly 12% of Armenia's total export earnings in 1990. Grain, meat and dairy products have traditionally been largely imported. In 1990, Armenia produced only 20% of its cereal and 30-35% of its dairy and meat product requirements. In 1992, agricultural imports made up more than 30% of total imports while agricultural exports had risen to 23%.

Privatization Process in Agriculture

In 1991, a very important step was taken: the privatization of land began. In the middle of 1993 the greater part of agricultural land was already privatized. As a result of privatization 298,100 individual peasant farms and 1,800 collective peasant farms have been created. The number of individual peasant farms has been increasing continuously as remaining collective peasant farms disintegrate. In early 1995, there were 314,000 individual peasant farms. Since in 1991 about 94% of the agricultural enterprises functioning in Armenia have been privatized.

Since it is necessary to provide agriculture with seeds and root stocks as well as to organize breeding and selection, at present 65 seed breeding and breeding cattle units function which are not subject to privatization.

Currently the private sector, i.e., the peasant and peasant collective farms, produce 92-94% of agricultural output. The established peasant and peasant collective farms have

431,700 hectares of land as a result of privatization, or 61.6% of all agricultural land excluding pastures. The rest of the land is reserved by the state (20%) or other state or mixed agricultural enterprises (19.4%).

Peasant farms have 87.4% of the privatized land and the peasant collective farms have 12.6%. Each peasant farm has an average 1.3 hectare land, of which 0.90 hectare is arable land. The peasant collective farms average 30.2 hectares, of which 21.1 hectare is arable land.

Of all cattle, 346.1 thousand (79.2%) have been privatized to the peasant and peasant collective farms, including 119.8 thousand cows (82.5%). Privatization has also included 43.3 thousand pigs and 659.3 thousand sheep and goats.

Individual peasant farms have 54.6% of the privatized cattle, 52.5% of pigs, 74.1% of sheep and goats.

Main funds refers to the major capital equipment used in agriculture. Of this equipment, 28.9% has been privatized: 63.7% of the tractors, 43.8% of the combines, 55.4% of the lorries. Barns, storage, repair shops, administrative buildings have been privatized to the peasant and peasant collective farms. This privatization of agricultural buildings has been relatively slow compared to the privatization of equipment.

Armenia has made significant progress in privatizing the planned economy in production agriculture. The structure of state order has almost entirely been altered, the costs of the means of production (equipment, fertilizer, etc.) and the products themselves have largely been privatized. The subsidies given to the producers and consumers were also canceled. However, these steps have had limited results due to a lack of competition in terms of production and market, as well as the slow pace of restructuring and privatization in agroindustry.

Difficulties in the Substructural Branches of Agriculture Caused by Privatization and Possible Solutions

The problem of overcoming the crisis in present day agriculture requires a universal approach to all the spheres of the agricultural system (agribusiness). Without a developed substructure, no part of the system can function without failure -- neither the first sphere of means of production, nor agricultural production itself, nor the third sphere of processing and distribution.

The agricultural production complex is an interbranch system. About 20% of the main production funds of Armenia, and 30% of labour resources are concentrated in this area. Approximately 80 branches of the national economy are involved in the formation of agribusiness output and within agriculture, products of 70 branches are used.

The functional division of labour in agricultural production and further development of the interaction of agriculture with other branches of the economy calls for establishing a set of specialized substructural branches, as well as the reorganization and coordination of existing branches. For instance, in the Republic of Armenia two unions provide the agricultural

technical and material supply. One is “Agroservice” the other is “Berritium” which deals with chemical and soil improvement. Improved coordination and integration of main production and the substructures is absolutely necessary.

Each branch of the substructure has its role in the system of agricultural production. For example, the system of roads and transportation, communication, information service, material and technical provision, electrification, serve all the spheres of the agribusiness system. The purpose of the other groups is to serve the second and third spheres where the final product is created and distributed to the user. (Figure 1)

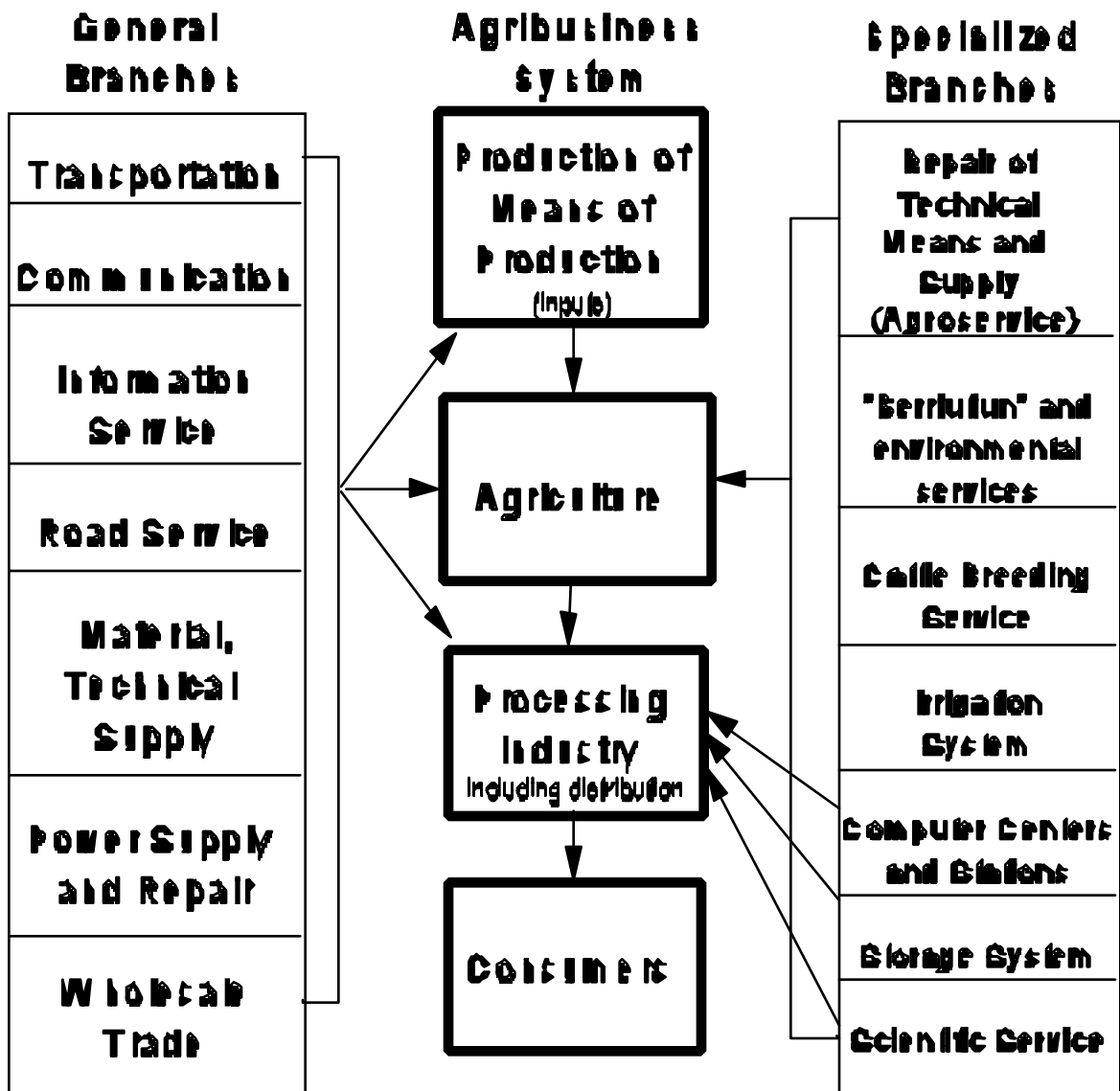


Figure 1. Substructure in the Agriproduction Complex

Privatization of land has greatly increased the number of individual owners which will, in turn, encourage the development of many specialized branches of the economy to serve their needs. This requirement for technical and scientific support and other products and services will result in further specialization of businesses and labor. This is a natural, objective, progressive phenomenon increasing the efficiency of resource allocation and production. This has been the case in all countries where production and social substructures are completely formed and developed, with functions distributed continuously, never repeating one another, without unnecessary mediatory links and with an average norm of profit.

There are many important parts within the agricultural substructure and the main funds of agriculture, which influence agricultural production. In order to improve the links among the sectors, many services and substructures need to be reorganized. The following is a brief summary.

Service of Material Technical Supply For the material technical provision of agriculture in the Republic of Armenia, the republican production provision union “Armagroprovision” has been established. It is a link between industry and agriculture. Armagroprovision studies the demand for technical means, equipment, building materials, fuel, fertilizers, chemicals, spare parts, and other needs of agriculture, and provides their regular supply. However, this service is still inefficient. It needs to change into a privatized business service focused on the producers’ needs, which can meet the demands of small, average, and large producers. This service must create a reliable supply market, while taking into account the interests of small mechanization.

Maintenance and Repair of Technical Means Along with supplying the farm with efficient and different technical means, it is necessary to encourage its most economic use. The repair shops, factories and the technical service stations for vehicles currently do only a small part of the repairs and technical service in Armenia. Their cost has not decreased, on the contrary they increase year by year. Thus, during the lifetime of a tractor, the cost of its maintenance and repair exceeds the expense of purchase several times. These services are poorly equipped with up-to-date apparatus, manual work is still great, and the farmers go to them unwillingly, but there is no other choice. Since spare parts are very scarce, repair shops and others can increase the price for the parts and the services they offer. So the farmers try to make the repairs themselves. This service also needs fundamental reorganization.

Services for Chemicals and Soil Improvement The agrochemical and soil improvement services includes the laboratories of research institutes and their regional network of services. They study the soil, introduce nutrients into it, and do the agrochemical mapping of the soil by contract. The quality of the produce and its ability to be stored largely depends on this service. Formerly in Armenia, about 400 thousand tons of mineral fertilizer, 3 million tons of organic fertilizers (manure), and 10 thousand tons of chemicals were used annually. To introduce them into the soil, 300-450 machines were used for mineral fertilizers and 80-100 for organic ones plus hundreds of sprinklers and the like. But this service is not accessible to the small land owners and small cattle farms because they generally lack cash for purchases. No agrochemical research is done on the soil of private and collective land users and no control of the cattle diseases is exercised. Information and advertising is poor. The efficiency of the service is still very low. Its help is badly needed by decentralized, undercapitalized and

nearly helpless peasant farms. It has to be fundamentally restructured; this service has to become a contractual service of mutual benefit to the all parties of the market economy.

Zoservice In cattle breeding, social production brought about a developed zoservice which includes a huge network of laboratories, equipment, devices, drugs, diagnostic centers, outpatient services and quarantine information.

As cattle breeding farms have been privatized, direct observations and control by the zoservice has become quite poor. Ways to reconstruction of this substructure must be sought. With conditions of denationalization and privatization of property, its need will not decrease, on the contrary, it increases.

Transport Transport is an important part of the production substructure. Agricultural production, with its huge economic impact, is useless without developed transport.

This service is extensive. About 250 kinds of products are transported in Armenian agriculture. The volume is more than 14-15 million tons which is about 30 tons per hectare. Vehicles provide 75% of agricultural transportation, with 23% by tractors, and 2% by animal driven transport.

The present state of the transport service is a result of the administrative economy formerly in existence in Armenia. This service is very slow. Progressive means of transportation have not been adequately introduced, losses are great during transportation and the quantity of specialized transportation is unsatisfactory. Transportation in containers is not yet practiced in Armenia, even though their use could reduce manual work by reduced three times, general expenses two times and transport idling 3-4 times.

In 1992 about 17,000 lorries were used in agriculture, which obviously could not meet the demand of peasant and peasant collective farms. The unsatisfactory functioning of this substructure can be explained by the lack of spare parts and fuel, poor state of roads especially interfarm roads, the poor incentives for workers, lack of services (state transport inspection, inspection stations on roads), and lack of information.

Roads This sphere is very capital dependent. Prior to 1990, one kilometer of interfarm gravel-covered road cost 15 thousand roubles, asphalt covered road cost 60,000 roubles and a first rate thoroughfare cost 0.5-2.5 million roubles. The return was 4 roubles per one rouble capital investment. With asphalt roads, the volume of loads transported increases by 80-100%, speed 2-3 times, fuel expenses decreased twice, and repair expenses are reduced several times. Transportation by asphalt covered roads is four times cheaper than by roads with gravel covers. 95% of the roads of agricultural units have no more than a gravel cover. The general state of roads is unsatisfactory. The average annual down time for a truck damaged because of bad roads is 40 days. Greater attention should be paid to roads laid privately or on a cooperative basis. This will lead to better quality of products, longer life expectancy for vehicles, and lower transportation costs.

The System of Storing and Marketing The system of storing and marketing is the main link between the Ministry of Agriculture and the farmer. The separation of the services of input

supply and marketing as independent private spheres will enable producers to focus on increasing production and quality. However, today's producers have lost trust in storing organizations because they don't get paid in a timely manner for the produce they deliver.

The storage service is a complicated economic organism, involving not only the complex of product-money relations but also their material technical basis or capacities. Armenia's present storage capacity is only enough for 50% of the potatoes, fruit, and vegetables, and 10% of the easily spoiled produce. The storage facilities are old, with only 30% equipped with freezing and ventilation equipment, resulting in losses of 30-40%. Estimates show that by having up-to-date storage equipment, expenses can be cut by 10-20% and their life increased 1.5-2.0 times. In addition, keeping the same amount of produce from spoiling is 2-3 times cheaper than its production.

Current storage facilities need fundamental reconstruction. Today there is not a storage station in a single village in Armenia which could free the peasant from the burden of bringing his produce to the market and from the associated loss of time. This is an imperative for the village if losses are to be reduced.

The natural continuation of storing is preservation and processing. Because of the small number of processing units and the lack of new equipment, losses are great during processing. At the same time, the rate of creating and introducing new kinds of produce, equipment, apparatus, and automated means in the food industry decline year by year. At present 42% of the equipment is economically worn out, the age of 80% equipment is over 25 years, and only 25% is up-to-date equipment. The life expectancy of equipment in these spheres is 16-17 years.

Under privatization of means of production and land in Armenia, instead of 860 agricultural enterprises, hundreds of thousands of producers have emerged. A new approach -- an integration and cooperation of producing-processing-selling units -- has become necessary. Storage, transportation, processing and selling are an important part of marketing. To solve the economic problems (production of new products, their realization, services, etc.) the market data have to be used, that is demand, pricing, advertising and distribution costs must be evaluated.

Other Services The production substructure also involves scientific production provisions, legal services, business services (getting current information, business ties, ties with production sites, etc.) as well. These services are expanding at present and new ones are being established. But they lack the qualities typical of the business market, that is efficiency, ingenuity, flexibility and knowledge. The capacities of computers are low, and they are acquired with great difficulty. Information services lack a complete, universal system, they function separately, the feedback is poor, and the study of demand is not up to the mark. These services are only local, with poor or unrecognized international ties.

The present state of these services is explained by the absence experience with, or the discipline of, a market economy.

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