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Estonia Food Industry Privatization

Phase I Report

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SECTION ONE

EXECUTIVE SUMMARY

The Phase I team for the Estonia Food Industry Privatization project completed assessment missions in Estonia in July to identify and select the best enterprises as candidates for privatization.

Early in the assessment, the team observed that Estonian dairy producers and local government officials were moving toward compliance with the law mandating collective privatization by January 1, 1993. The potential benefit of a "pilot project" to be used as a catalyst and model was less beneficial than when the idea was conceived and proposed early in 1992. In discussions with the AID Representative, Adrian DeGraffenreid, the team identified and developed a method of spreading the impact of the project to a broader base of producers while maintaining the focus on completion of one or more "transactions," i.e. transfer from the central government to private ownership.

It is important to note that the triage and assessment process focused on the countryside, rather than Tallinn, the capital. Even though we called on the Ministry of Agriculture, the local reform commissions created under the new law for each collective have crucial importance and have become our counterparts. The team determined that neither the Ministry nor the farms themselves have the skills necessary for effective business planning, strategy development, or preparation and analysis of pro forma financial statements and projections. These are areas that this project will address. We believe that both focussing on what works in the countryside and what helps maintain the viability of the agribusinesses surveyed, while providing employment and profit making potential for Estonians, are the most important elements of this project.

SECTION TWO

THE DAIRY INDUSTRY

STATE/COLLECTIVE FARMS

Of the 385 state and collective farms (sovkhozes and kolkhozes, respectively) in Estonia, 120 (31 percent) are state-owned and 265 (69 percent) are collectives. The average size of the state farms is 3,821 hectares, while the average size of the collective farms is 3,688 hectares. Of the total number of state and collective farms, 35 are considered to be major in size, with 400+ cows.

The outlook for the sovkhozes and kolkhozes is bleak. In 1990, approximately 90 percent of the operating resources for the state and collective farms was supplied by the former Soviet Union (FSU) at below-world-market prices. With the demise of the Soviet Union, the normalization of input prices to world market level and the FSU's demand for convertible currency, it has become increasingly difficult for the centralized farms to obtain needed resources. Furthermore, as the state and collective farms foresee privatization to be inevitable, little concern is being shown for the maintenance of the sovkhozes and kolkhozes as ongoing entities. Except in cases of the most powerful state and collective farms, capital expenditures have ceased and machinery and equipment are actually being liquidated to cover costs.

The collective and state farms in Estonia have not been combined into giant kombinaats, such as those in the Volga River Region of Russia. Small "Agrofirma" or miniature kombinaats that integrated the production and processing of a product such as milk were formed but without the massive infrastructure of the Russian model. The individual state and collective farms have maintained some of their identity, some processing capacity, and local management. On the other hand, the Estonian farms following the Soviet system, have as part of their working model the practice of integrating social and operational assets. Therefore most of the collective and state farms have housing units for the workers, canteens where they are fed, centralized heating and water delivery, recreation and cultural centers, and other ancillary assets that do not relate directly to the business of the farm and in most cases require large amounts of cash from the farm to sustain them; the farms are not, as structured presently, financially self sustaining. During the privatization process, privatization participants (local, country, and national governments, Reform Commissions, collective and state farm management and employees, private farmers) will need to address the distribution and restitution of all farm assets as one form of management and control passes to new, private ones. It is important that the farms receive guidance in the handling of ancillary assets, which assets are considered "social goods" and which can operate as businesses charging fees for their services. We believe that the issues surrounding social assets should be addressed as a separate project for rural ancillary assets after initial privatization is complete.

PRIVATE FARMS

Prior to the Soviet occupation, Estonian agriculture was characterized by much smaller-scale farming. The popular attitude toward farm privatization, coupled with the Estonians' predisposition toward smallholding, have resulted in explosive growth in the number of private farms since Estonian independence was declared in August 1991.

In mid 1992, there were approximately 7,255 private dairy farms, an increase of approximately 100 percent versus the 3,600 private farms reported in early 1991. Private farms are clearly much smaller than state or collective farms, with an average size of 26 hectares (11 hectares of arable land) and herd size of 2-10 cows.

While reprivatization of family farms is encouraging as it promotes the restitution of private property laws it does not support increased efficiency or commercial viability on such a small scale. Reprivatization of family farms threatens to create large numbers of sub-25 hectares farms, which are able to achieve little beyond subsistence-level earnings. Furthermore, these farms lack adequate plant and capital and are not expected to contribute greatly to Estonia's agricultural output in the near future. Indeed, Agriculture Minister Molder predicts that one-third of the farms created during the first five years of privatization will fail, and/or be consolidated into larger operations. (A social cost of economic adjustment which must be addressed) The Estonian Ministry of Agriculture cites the ideal size of private farms to be 50-80 hectares with 40 cows.

Recognizing that worker displacement is part of the price that must be paid in the process of privatization, we propose a separate project, perhaps in conjunction with ancillary assets, to involve programs of retraining. (See: *Retraining Displaced Workers: What Can Developing Countries Learn from OECD Nations*?, Duane E. Leigh, The World Bank, WPS 946.)

TABLE 1

MILK PRODUCTION BY PRIVATE AND STATE/COLLECTIVE FARMS
(Percent)

	1985	1989	1990	1991	1992E
Private	18%	15%	18%	24%	38%
State/Collective	82%	85%	82%	76%	62%

Despite their smaller size, private farms have higher production rates than do state and collective farms and the proportion of milk produced on private farms versus state and collective farms is rapidly increasing. 1992 estimates project that private farms will account for 38 percent of total milk produc-tion versus 24 percent in 1991 and 18 percent in 1985. (See Table 1.)

Average raw milk yields are approximately 4,100 kg/year on state and collective farms versus as much as 7,000 kg/year on private farms. A key reason for this difference is the attention ("management") which the private farmer gives herds due to direct ownership. In addition, the private farmer may be more careful or knowledgeable about preventable diseases such as mastitis. The private farmer will feed the cows the best feed obtainable, including protein supplements, even compromising personal dietary needs. This is not the case with collective cows, particularly during the last three to five years when imports of feed additives have fallen dramatically from the former Soviet Union. The small, private farmer is less likely to follow the collective practice of "trailing" the cows to and from pastures every day. Private fields are closer together so there is less tendency to walk milk off the cows. Some contacts in the industry have suggested that private farmers get better quality cows and are more careful about breeding. Our observations indicated breed quality to be similar for all farmers, perhaps because not enough time has passed since the end of the command economy for breeding differences to appear.

INDEPENDENT PROCESSING FACILITIES

There are eleven state operated dairy processors which dominate the industry. Most have satellite plants, bringing the total number of plants to 38. There are seven private dairy processing plants, six of which are spin-offs from the Tartu and Tallinn Kombinaats. Private dairy plants are small in relation to the collective and state farm units. Production includes fluid milk, cheese, kefir (a dry, fresh, very fine-curd cheese product), sour cream, and butter. The primary market outlets are butter, whole milk products, and cheese.

With average milk production costs in 1992 running at 104 percent to 115 percent of prices paid to the producer, many state processing plants are incurring losses. (See Table 2.) Production costs at collective and private facilities, however, are between 10 percent to 25 percent lower than state facilities, enabling the most efficient processors to turn a profit. Some of the private processors have been able to offer higher milk prices than state processors. For example, in late 1991, raw milk supplies were being increasingly diverted to skim powder (NDM) production because higher export prices were available. For example, Ravala Ltd., an association of private dairy farmers, was able to outbid the state dairy plants for raw milk at a time when milk prices were still not liberalized.

TABLE 2

MILK PRODUCTION COSTS

	1991 (Rubles/kg)	1992 (Kroon/kg)
Labor	13	63
Feed	29	307
Dprn	2	8
Maintenance	2	73
Transport	2	52
Admin	11	106
Other	7	183
TOTAL	65	833

It is important to maintain some perspective on the success of the small number of private dairy plants to date. First, they are small in size and are closely held so decision making has been easy. Second, they are selective about who they sell to and how they obtain payment. Third, the state owned entities have to sell to the consuming public, including government distribution networks; often they have not been paid by the government for months, resulting in a competitive disadvantage. Finally, a frequent criticism is that the state plants are poorly run. Our observations indicated that state run plants were running as well as could be expected given the technology, testing equipment, standards, and training at each location. The team observed several instances where economies of scale applied in the larger plants; with efficient management they should be quite competitive. It appears that there would be excess plant capacity in Estonia if operated efficiently; some of the older or less efficient plants should be phased out of production.

INDUSTRY EVALUATION

Inputs

One of the greatest problems the dairy industry currently faces is a shortage of protein supplements and grain inputs. Estonia traditionally has had to import feed grain to meet milk and meat production requirements. Subsidized grain inputs are no longer available from the FSU and, as a consequence, feed grain prices are now essentially at world market prices. For example, average barley prices in 1991 were about U.S.$30/Metric Ton (MT) versus $100/MT in 1992. Coupled with a severe liquidity crisis, farmers do not have the money to buy feed concentrates.

There are ten major feed manufacturers or feed mills in Estonia ranging in size from 200-600 tons/day capacity. All ten have been under the direction of the Estonian Grain Board which purchases all domestic and imported grain for feed and food milling and distributes to the mills based on need determined by the Board.

There has been no movement towards cooperative activity or privatization among the feed mills. Part of the reason is that there is no purchasing or marketing expertise among the millers. The Board has handled all ingredient purchases and has dictated where the manufactured feeds are to be distributed.

The level of feed concentrate production has dropped dramatically because of the lack of imported feed stock. This bottleneck results in a large excess capacity in the feed industry which creates huge inefficiencies since each plant is running at a small percentage of optimal capacity. In 1989, production was 1.3 million MT, while the Board projects 1992 production of 250,000 MT. None is being targeted for dairy; all feed concentrate production is being allocated to hog and poultry industries because of the relative importance of meat in the Estonian diet, and the possibility of reviving the meat trade (especially pork) with Russia.

The Board projects total feed and food grain import needs for 1992-93 of 745,000 MT with domestic production only adding a projected 400,000 MT. Animal feed needs are projected at over 700,000 MT, significantly exceeding the domestic capacity without considering human food needs.

Production

A combination of very high prices for inputs, feed shortages, and a dry growing season has greatly reduced current and forecast milk, butter, and cheese production and consumption levels. Under the worst-case scenario prepared by the Estonian Dairy Association, 1992 per capita milk and meat consumption will fall to 70 percent and 26 percent of the previous consumption levels, respectively.

The feed shortage has dramatically influenced production levels. As of early 1992, the shortage had caused an approximate 50 percent reduction in meat production and an approximate 40 percent reduction in milk production. Although Estonia is a surplus milk producer, 1992 production is expected to decline more than 25 percent compared to 1991 and more than 36 percent compared to 1985. (See Table 3).

TABLE 3

ESTONIA MILK PRODUCTION AND CONSUMPTION
000 MT (Milk Equivalent)

	1985	1989	1990	1991	1992E
Domestic Production	1260	1258	1200	1070	800
Domestic Consumption	735	748	831	770	600
Exports	525	510	369	300	200

(On farm milk consumption is estimated at about 60,000 MT)

The shortages of feed, and especially of imported grain, along with this year's inadequate rainfall have reduced domestic fodder production and caused farmers to reduce per animal feeding rates. The result has been the slaughtering of cattle and pigs. As of mid-1992, reports estimated hog reductions to be as high as 80 percent, and cattle and dairy herd reductions at 30 percent to 40 percent. Stock liquidation has resulted not only in a decrease in the number of cows, but also a decrease in milk yield per cow. 1992 projections forecast a drop in milk yield per cow of more than 20 percent versus 1991 and 26 percent versus 1985. (See Table 4)

TABLE 4

ESTONIA COW NUMBERS AND MILK YIELD

	1985	1989	1990	1991	1992E
Cow Numbers (000)	308	301	293	281	264
Milk Yield/Cow (kg/year)	4,090	4,184	4,083	3,810	3,027

Processing

Estonia's processing capabilities are adequate in terms of the condition of the equipment at the processing facilities that were visited in Phase I. The size and capacity of the plants are similar to plants found in many parts of the United States where small scale production continues to be economically possible. All of the plants possess some degree of mechanization, but not a great deal of automation; the processing facilities clearly rely upon the cheap and readily available supply of labor. A major problem that the processing plants currently face is a shortage of Soviet spare parts. Disruptions in trade with the FSU, has caused Estonia to enter into barter arrangements, even exchanging butter for spare parts.

Perhaps the biggest problem in the processing sector is quality control. The dairy industry lacks strict regulation and proper facilities to produce milk that stays fresh beyond 24 hours. (As a point of comparison, U.S. milk producers attain 10,000 bacteria/ml., while Estonia's highest grade is 300,000 bacteria/ml.). The poor quality of the milk is attributed to many factors: poor testing of the product, inadequate or nonexistent standards to measure against, poor or complete lack of cooling on the farm, lack of sufficient cleaning chemicals, improperly installed or poorly maintained equipment, poor laboratory controls and tests. This low quality milk is less-detectable in manufactured products such as cheeses, and as a result, fluid milk consumption has declined as more milk is used to make other products. The development of a processing facility for "drinking milk," which could be achieved at relatively little cost, offers significant opportunity. We believe there is significant unmet demand for milk. Production of milk with a longer shelf life would create new competition among processors for the benefit of the industry.

Markets

The demise of the Soviet Union has resulted in the loss of 40 percent of Estonia's intra-USSR markets. During the Soviet period, Estonia consistently "marketed" between 40 percent and 42 percent of its annual milk and milk products output through the Soviet Union's system of state orders. In 1988, for example, 515,000 tons of a total 1,220,000 tons (42 percent) of milk and milk products were shipped to the All-Union (CCCP) Milk Fund and sold through the state procurement system. Virtually all of the production entering the state procurement system was exported to other Soviet republics. Remaining Estonian output was marketed domestically through internal distribution channels. (See Table 5)

TABLE 5

MILK PRODUCT EXPORTS
MT & (% of production exported to Russia)

	1989		1990		1991		1992 (Jan-Jun)	
	Russia	Other	Russia	Other	Russia	Other	Russia	Other
Butter	12658(41)	15	11047(38)	10	9635(36)	.5	1790	177
Cheese	5745(34)	938	4119(25)	329	3902(28)	1	1303	21
Cond'sed	4597(33)	-	4084(31)	-	1495(23)	-	-	-
Powder	4763(32)	?	4079(31)	?	2440(19)	?	205	?
Other	34154(8)	-	27424(7)	-	14481(5)	-	-	-
TOTAL	61917(13)	954+	50753(11)	339+	31953(9)	1.5+	3298	198+

The Estonian export focus has been on butter, followed by cheese, condensed milk, non-fat dry milk (NDM) and whole milk powder. Russia, Uzbekistan, Azerbaijan, Armenia, Georgia, Tajikistan, Turkmenistan, and Kazakhstan were the dominant markets through 1991, but recent lack of hard currency has resulted in a substantial decline in exports of all types to the FSU.

The EC has offered some aid both to Eastern Europe and the FSU in the form of a triangular trade deal that could move dairy surpluses from the Baltics, Hungary, Bulgaria, and Romania to dairy deficit Russia. However, the focus of this effort is on meat products and only 10,000 MT total in dairy products all of which is allocated to NDM. This volume is too small to have a significant impact on the Estonian dairy market.

The primary hard currency export destinations are reported to be the Netherlands, Finland, Sweden, and Denmark. The EFTA countries, however, are all surplus dairy producers, while the EC is the world's largest dairy producer. Both trading blocks have export subsidy and import levy systems in place that effectively prevent imports. It remains to be seen whether or not the impact of a GATT objective to eliminate import restrictions on 3 percent of the EC dairy market is achieved.

Estonia's major export product outside the FSU is NDM, which is primarily used in animal feeds as a calf replacer. Total milk powder exports may run as high as 30,000 MT. As EC subsidies for the use of NDM have been decreasing, Estonian exports of NDM are, for the most part, re-exported. Competition in the EC NDM market may result in a temporary lowering of the levy, but the EC clearly is not a long-run market for Estonia. A greater variance in quality and an overall lower quality Estonian product, as compared to European product lines, contribute to this constraint.

Other exports, including butter and cheese, are also hindered by restrictive tariffs. Estonia is unable to establish a competitive cost position in butter exports to the EC and EFTA. Export prospects are better, however, outside these two blocks because of GATT minimum price regulations.

Cheese exports may be more promising because of lower production costs. Furthermore, cheese exports to the EC would enjoy a 10 percent tariff reduction because it would be used as an ingredient in food processing rather than a retail consumer product. Cheese products from Eastern Europe and the FSU, however, are considered to be of lower quality and it is uncertain if Estonia could compete in foreign retail markets.

Poland does not appear to be a significant market for Estonia and, in fact, will emerge as a significant export competitor for Estonia. Poland was a major exporter of NDM and butter in 1991, and does not offer a market for cheese, given Polish preferences for fresh cheese.

It is conceivable that the production of yogurt could be started, quickly and inexpensively. The shift in technology from the existing production facilities for kefir is minor; start-up costs would be relatively low. It appears that there is a high demand for yogurt, as imported stock quickly sells out when available. Estonia produces a wide variety of berries which are appropriate for flavorings, many of which are available practically year round. Packaging facilities and requirements would be obstacles that, with appropriate technology and offshore investment, could be overcome.

IDENTIFICATION OF INDUSTRY BENCHMARKS

One important task for the project team is to establish industry benchmarks that can be used to monitor the project during implementation but even more importantly in years to come as the effects of A.I.D. interventions are evaluated. In addition to maintaining records of the site visits to the .arms where we have documented quantitative benchmarks, the team will also set up benchmarks to measure the project and performance of the dairy industry. Both sets of measures, the numerical benchmarks included in this report and standards set by the production and processing specialists will be maintained in a separate benchmark volume that will be available as part of the final report.

A sample benchmark matrix is attached to this report, as Appendix II. The final form will be completed in consultation with the A.I.D. Representative, the other team members, and industry specialists.

SECTION THREE

LEGAL AND REGULATORY REFORM

AGRICULTURE SECTOR REFORM ACT OF MARCH 1992

In March 1992, the Estonian Supreme Council adopted a watershed piece of legislation providing for the privatization of non-land agricultural assets. The objectives of the law are as follows:

- To create specific owners of property, regardless of whether they are State, municipalities, stock companies or private owners.
- To provide for compensation for nationalized or collectivized property.
- To stimulate the development of new enterprises.
- To return social functions and social infrastructure to the municipalities.
- To increase efficiency and rural standards of living.
- To introduce the concept of private ownership versus common property.

The Estonian Government defines the following rights:

- Workers on state and collective farms are the owners of the farm and have full rights to determine deployment of the assets of the farm.
- The right of the State to be compensated for property that belonged to the State before 1940, as well as buildings constructed since then that were financed with State funds or loans.
- Farms are obliged to turn over social assets to the municipalities.
- The right to decide whether property is subject to compulsory privatization within the timetable of the privatization program or whether the period may be extended.

The law provides for a very short period for the distribution of the assets. Excluding land and key processing facilities, the reform of the sector is set to occur before January 1, 1993. Some managers and reform commission members are concerned that there is insufficient time to prepare an adequate program. The consensus, however, is that now is the time to begin the process.

ESTABLISHMENT AND ROLE OF REFORM COMMISSIONS

As the Privatization Law does not provide the basis for consistent nation-wide implementation, the Government has instituted a system of reform commissions to facilitate and oversee the process of collective and state farm privatization. These commissions are organized at the collective farm, municipal and county (maakoond) levels. It is important to note that the law also makes these commissions the focus of both responsibility and power in the privatization of the collectives. The national government is not the ultimate agricultural privatization decision maker.

The functions of the commissions include asset inventory and valuation, consensus gathering regarding approaches to privatization, adjudication of local conflicts, and preparation and execution of the reform plan.

While it is the role of the municipal and district commissions to coordinate the privatization process, and thereby influence the ultimate course of privatization, the *de facto* authority resides at the local (farm) level.[1] The local reform commissions determine what assets are to be decollectivized, how such a process is to occur, and who the beneficiaries shall be.

Typically, the local commission is composed of three members from the farm or enterprise, three representatives from the municipality that will be affected by the reforms, and one each from the county and national government. In some cases additional members will be allowed if more than one collective farm or a large number of private farms are included in the region. (The reform commission for the Emajoe Collective Farm in Luunja, for example, is composed of 11 people: three collective farmers, three private farmers, three municipal employees, a county agricultural advisor and a representative from the national government.)

A major issue we identified during Phase I was the problem of "common goods". Goods held in common create problems of administration and budgeting in every economy--national parks and public lands, natural minerals resources, or heating plants and cultural centers. In addition to deciding how the productive assets of the farm are to be deployed, the commissions are also responsible for the treatment of public assets (ancillary assets), such as schools, heating plants and other public facilities. There is the presumption that municipalities are to take all assets given to them, and that they will find the means to finance their operations.

In the case of more exotic assets, such as sport complexes, the decisions of the farm to cede them to the municipality may not be followed. There is little local experience with taxation and pricing of utilities, and the ability of the community to pay for these services and facilities may be in question. There is little evidence, however, that municipalities will refuse newly privatized assets because they are not able to afford them.

Reform commissions do not have the expertise to make decisions on pricing, taxation, valuation, and other factors affecting the privatization of ancillary assets. In fact, because it is a new concept and will involve determining not only valuation but how to finance the operations of the assets, the set of issues related to non-productive farm assets is complex. The reform commissions appear unable, without substantial assistance, to decide upon a course of action, preferring to discuss the restitution of property according to individual claimant requests. The first issue will be to keep the reform commissions focused on the problems at hand, transferring operating assets to their highest and best use in private hands. This will assure continued economic growth and secure the employment base. It is not necessary to deal first

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[1] Farm/commission relations, especially those between the farm director and the local commission, are an extremely important ingredient in choosing the privatization targets. These relations are a substantial source of conflict and social problems. In some cases, the director will oppose decollectivization of (state) farm assets, only to have the local commission insist on such a process.

with the ancillary assets; short run solutions can be managed and consensus reached after productive assets have been properly placed.

The reform commissions, especially the farm-level commissions, are without doubt the key institutional factors in the process of decollectivizing the sector. They are charged with making all of the fundamental decisions surrounding the enactment of the law. They are also charged with execution of the decisions of the community. There will be an appeal process available to farm workers who are not happy with the division of assets or the commissions' plans for the future of the farm. The commissions, however, have the authority, due to the reform law deadline, to proceed in a rapid and dramatic fashion to transform the production segment and the collectivized portion of the processing segment to private ownership. The state has the right to delay actions for several days if legal or other clarification is necessary and to provide the members of the commission some time to think before important decisions are finalized; however, the state does not have veto power.

LAND TENURE ISSUES

At present, a privatized farm can rent land on a long-term basis, but cannot own land outright. The Agricultural Privatization Law omits land from its definition of agricultural assets. The law also places a five year limitation on the time provided to resolve land ownership questions.

The local government has the right to decide which lands may not be restored to previous owners. It also has the authority to dictate that the previous owners must rent land to the local farm, or, in exchange for recovering control of that land, grow forage on a contract basis for the farm.

Presently, local and county governments are reviewing claims for land restitution, submitted by Estonians, both locally and from abroad. At a minimum, this review will result in re-mapping of land according to potential private owners.

County commissions are the final arbiters in the process of land distribution. Where there are competing claims for the same piece of land, county and municipal officials who serve on the reform commissions determine the legitimate owner. Although they are allowed to have input, county and municipal representatives do not have veto authority on restitution of land according to individual claims.

SECTION FOUR

PRIVATIZATION OF DAIRY ASSETS: INPUT/DISTRIBUTION NETWORK, PRODUCTION UNIT, AND PROCESSING FACILITY

PROSPECTS

During the field evaluations team members identified and studied a number of processing and farming enterprises suitable for project support. Many types of enterprises, in various stages of awareness of privatization, were visited (and are included in Appendix I) Strict selection criteria, described below, were applied to the selection of the best privatization candidates. It became clear that privatization support is essential if agribusiness enterprises are to survive, on a profitable basis, in Estonia, and that the sweeping changes induced by recent legislation has lent an urgency to the agricultural sector which is exhibited only rarely in other segments of the Estonian economy.

As a example, we cite meetings arranged at Vaike Maarja by the implementation team for U.S. Ambassador Frasure, and Frank Almaguer and Adrian DeGraffenreid of U.S. A.I.D. with municipal and collective leaders indicated a strong interest in privatization but a clear need for direction and support. Ambassador Frasure noted that there was a lack of planning or strategy development but was impressed at the commitment the local officials had to the process of privatization.

In some cases the commitment exhibited borders on naivete. This naivete and the weaknesses in the reform commission "breaking new ground" demonstrates the need for assistance from a project such as the Estonia Food Industry Privatization Support Project. The project is designed to provide guidance to those enterprises that are leading the process of privatization.

METHODS

The original project envisioned using different models to illustrate the best solutions to privatization of agribusiness entities. It also envisioned models for other agribusinesses to follow. As we have already noted, the present status of privatization and the approaches being developed by local reform commissions differ significantly from that which was understood during initial project planning. The processes in some cases are dictated by the time limits and methods mandated by the state and implemented by the reform commissions. In the following sections we discuss the methods as they will be applied in the current environment.

Share Distribution

Share distribution will be used to distribute ownership of the collective enterprises. Shares have been mandated by the government for all collective members from the date of collectivization through the present. Shares will be distributed based on the amount of time the worker was employed there. In many cases there is a strong desire to weight the collective members presently active compared to those who are retired or heirs of former workers. This form of weighing is not mandated by law nor does it appear to violate the spirit of the law. Although share distribution appears to many to be just a case of rearranging the same people, in practice it does have the clear effect of private decision making.

Share distribution occurs because each collective will be broken up into multiple entities. The worker will receive vouchers for shares that can be turned in for the whole farm, any of the enterprises, or other assets. In fact workers from outside the region could potentially request ownership of the shares of a particular collective. A number of municipal and county commissions are planning to restrict purchase to those living within the confines of the governmental entity or to require that shares be used within the community, a clear violation of the principles of free ownership and property transfer rights. The objective of keeping ownership nearby can be understood but the long run implications are detrimental. We will work with the enterprises we have selected to show them how to achieve competitive status without resorting to such restrictions, mainly conceived out of fear that there may not be sufficient interest or buyers to keep local enterprises functioning without continued state ownership. Development of business plans and strategies will help eliminate this concern.

Purchase

Purchase of shares or interests in state property is limited to joint ventures with pilot enterprises and foreign firms or the purchase by use of share vouchers. To the extent that Estonians consider the share vouchers as having value, (that is, they can purchase assets of various kinds that have positive net value) the use of the vouchers to buy interests in property controlled by the state is a form of purchase. Wherever possible this method will be used and the free right to purchase or not purchase shares becomes part of project planning and support.

Leasing

Since several of the entities in the planned privatization are state farms, leasing will become a part of the privatization process. One of the state farms, at Tartu, has already made plans effective September 1 for a joint stock company made up of some of the employees and managers of the farm to lease the unit from the state. The present general director will stay on with the state farm to serve as the state's "farm manager" and manage the lease. While this might also be used by the collectives it is less likely since the share vouchers being distributed should be adequate to produce private ownership directly.

Cooperative Ownership

Cooperative ownership has already been implemented by several of the plants, including the one at Poltsamaa. In this case the owners are the state and collective farms who delivered milk to the unit and who capitalized the unit based on their shares distributed from the amount of milk each delivered to the plant. This method will also be considered for the privatization of collective assets like those of Vaike Maarja where the cheese plant is also a collective. In distributing ownership among cooperative members of the private and state farm milk suppliers, an equitable way of distributing wealth is achieved, while assuring management continuity.

Contracting Out

This does not appear to be a viable tool for any of the dairy units considered for privatization support under this project. However, in the case of ancillary assets, it might be a viable short run solution. Examples at Vaike Maarja include the truck repair shop and catering services.

Municipal "Give-Aways"

Municipal "give-aways" generally refer to municipally controlled assets. This is common in several East European countries. In this case they could refer to the common assets, such as heating plants, that the farms want to "give-away" to the municipality. The problem on both sides is how to pay for the utility with a population that is not used to paying for such services. The farms are reluctant to keep these assets due to the high costs of operation, with no revenue stream; municipalities are wary of accepting them (though unlikely to refuse) as their responsibility. The best solution in the long run will be to analyze each of these enterprises in the same way the dairy enterprises are evaluated, with the goal being to either establish private enterprises or tax supported municipal enterprises. We are recommending a follow on project to this activity to assist the reform commissions in dealing with ancillary assets.

SECTION FIVE

PROGRAM IMPLEMENTATION

TRIAGE

Triage began when the Phase I team was fielded. In order to utilize effectively the professionals during their Phase I activity each person was asked to assist with the process of triage. This was accomplished by each providing a summary of his/her activities as well as suggestions for which firms would make viable candidates for privatization.

Companies selected from this triage process were considered candidates for privatization assistance according to the following selection criteria:

- **Commitment to privatization:** the level of commitment of the employees, municipal government, and management of the enterprise to privatization. The process established by the state for restitution of land and privatization of collectives is consensus oriented at the local level. It is clear that a commitment from all the participants in this process will be essential.

- **Trained management and employees:** because we will have a very short time horizon, it is essential that the training level for the employees is already high. Shortcomings in technical capability will be almost impossible to manage.

- **Enterprise viability:** enterprise viability considers the competing uses of the land or other resources, the returns possible in the dairy industry, and the value and condition of the plant and equipment. If the plant can be improved to meet generally accepted dairy standards, we seek to answer the question: Can the enterprise be made financially viable?

- **Potential for foreign investment:** although not a deliverable in this project, we recognize the need for Estonia to generate foreign investment through marketing, technical assistance, or investment and operational joint ventures. We are committed to generating interest in Estonia and to the extent possible through our existing contacts, encourage foreign investment. Some firms and products are more marketable than others or have products with export opportunities and have greater potential for meeting this criteria.

- **Quality standards:** a plant or enterprise has to recognize and adhere to quality products standards. These standards will include levels of hygiene sufficient to pass international inspection (or the ability to upgrade to that level) and product consistency.

- **Comparative advantage:** a regional comparative advantage for domestic products or a competitive advantage for export products should exist for the plant or other units. This also implies that the product is marketable, has stable domestic or international markets, and can be marketed within existing trade blocks and trade constraints.

- **Regional impact:** importance and size of to-be-privatized entities to a specific locale assure greater attention to the project by the local municipality and other leaders. In the consensus type setting that privatization is occurring this commitment is essential. The measurable impact from the project will be clearer since it will not be cluttered by the growth or demise of other enterprises in the region.

- **Replicability:** replicability of the project for other reform commissions in the dairy industry, other subsectors in agriculture, and other municipalities in the case of ancillary assets is desired. The target enterprise should be selected so that it has value to the other enterprises in Estonia as a model or can be used for training other reform commissions.

According to the above criteria, a list of priority candidates emerged. As already noted the scope of Phase II for this project is changing because of new priorities which emerged from the government mandate to privatize the collective farm organizations by year end. The list that follows reflects the top candidates, and a sample of the scoring process, for the top three entities, is provided.

- **Vaike Maarja - milk plant and farms**

- **Tartu Milk Kombinaat - milk plants**

- **Poltsamaa - milk plant and farms**

- **Tartu State Farm - farm, input supply association**

- **Viljandi - milk plant (with cooperation of the county ag officer).**

SELECTION CRITERIA

Ranking: 1 (bad) to 5 (good)

	V.M.	Polts	Tartu
1. Management and Employees			
a. commitment	5	3	2
b. expertise	3	5	5
c. receptivity	5	5	3
2. Reform Commission (commitment & receptivity)	5	5	N/A
3. Enterprise Viability			
a. production	4	3	N/A
b. processing	4	3	2
4. Quality Control	2	2	2
5. Replicability	5	4	2
6. Regional Impact	5	4	N/A
7. Comparative Advantage	4	3	4
8. Potential for Foreign Invest.	3	3	1
Total Averages:	4.09	3.63	2.63

CONSENSUS BUILDING WITH STATE, COUNTY, AND MUNICIPAL OFFICIALS

It is clear that consensus building will be important due to the procedures Estonia has chosen to implement the privatization of its agricultural resources. The system for land distribution is proceeding rapidly by using reform committees for the farms and county and municipal commissions for the state farms. Farms, municipal, county, and state entities have specific objectives that will have to be met by reform proposals. At present the "natural leaders" are taking actions because of the vacuum left by the state in reducing its interest in the collectives. This vacuum will not last long and supportable decisions for privatization will have to be based on consensus.

The process of consensus building can be carried out in several ways. One that can be supported by this project is to bring the county, municipal and local leaders together with the enterprise management such as was observed in two locations, Poltsamaa and Vaike Maarja, during Phase I project implementation. In both cases, governmental and farm decision makers have begun a formal collaboration effort, resulting in better understanding, a sharing of information and interests, and some concessions in planning by each side. This process can be continued as Phase II begins by supporting, with limited training in privatization and management, those enterprises that appear to have the highest chances for commercial success.

We also recommend that focused consensus building programs with the appropriate state or ministry offices begin with A.I.D. assistance. Training can be supplemented by the development of more complete laws and regulations that provide more guidance on the objectives of the government in privatization which we consider an integral part of the venue of this project, i.e., recommendations on laws or regulations that are needed to strengthen all questions concerning the rights and obligations of private property ownership.

CREATION OF CANDIDATE-LED REFORM PROPOSAL

Privatization of collectives, as defined by the state government, has become candidate-led, taking shape as a reform proposal to be prepared by the farm reform commission, though we saw clear evidence of significant variation in the way reform commissions or county commissions were addressing privatization and land issues. These inconsistencies were obvious even within single municipalities. There were also significant differences between the plans of farm level decision makers and those of the government representatives.

The differences of opinion can be handled by consensus building; however, it is clear that the lack of central direction and the delegation of extensive authority to the local organizations have created the potential for significant inequalities. These inequalities can be as simple as the farm that says vouchers for stock ownership can only be offered to those members who work or worked on the farm and remain living in the municipality of the farm versus the farms that say all workers during the collective phase are entitled to some compensation. Another example we noted were some county commissions which favored that priority be given to local new farmers as opposed to heirs of historic owners. Whether the central government will step in to address these differences remains to be seen, but is doubtful. Delays may be encountered due to a call for judicial review, with the ultimate hazard of delaying effective planning and reorganization by several years.

Work on the reform proposals to be presented to the country commissions, as part of the project, will be designed to focus on the content, focus, and results of privatization--the re-deployment of assets, at their highest and best commercial use, for profit, in the hands of private citizens. While perhaps stating the obvious, this point is made here to emphasize that considerable diligence will be required by team members to move the current focus of reform commissions away from the questions of restitution to tackle the issues of re-distribution of wealth in the form of ownership in new enterprises.

REFORM COMMISSION APPROVAL

Reform commissions are a unique approach to the privatization of the farming units. The process of pushing the decision making as far down the chain as possible frees the central government from being embroiled in arguments between different groups within the local communities. It also avoids further financial strain on a government that is already months behind in payments to collectives and processing plants for the foodstuffs produced and sold for distribution to government entities. The reform commission has the option of either hiring a staff to put together the reform plans for their approval or to take an active and direct role in the process. In all the cases reviewed during the Phase I field work, the reform commissions were taking direct action. The reform commission has the ultimate authority to approve or disapprove a reorganization.

Reform commissions have been established for every agroindustrial collective. These include processing plants as well as farms. The reform commissions have been given wide authority to organize and carry out the privatization of the collective subject to review and confirmation at the county level.

The reform commissions for the primary projects are already alerted to our interest in working with them. Each has expressed an interest in the support services and technical assistance that can be supplied. The approval of the reform commission will be required at each step of the privatization process. In addition to working with the reform commission we also anticipate that we will assist in training for other farm reform commissions. Training will focus on the operations, obligations, and authority of the reform commissions and how the work of the reform commissions will enable privatization of agriculture.

All activities carried on under this project will originate from the reform commission. We fully anticipate that there will be times we shall lead the reform commission and times when they will lead us. The reform commission will develop the strategy, planning, and organizational changes necessary and will approve the execution of the reforms.

The use of reform commissions transfers decision making to the local economy and assures that all localities receive consideration. In some cases, the reform commissions are significantly ahead of the local community in making changes, resulting in some arbitrary decision making by the commissions on the participants and structure of the resulting enterprises (barns, crops, etc.).

The workshops which are planned for the first week of November will be designed to convey that though the privatization process is a complex undertaking, generic lessons and examples can be applied to the issues which emerge in difference locales. The workshops should contribute to the atmosphere of consensus which we view as crucial to the success of privatization efforts.

COUNTY CONFIRMATION OF PRIVATIZATION PLAN

Final approval (in the form of "confirmation" of a reform proposal; veto power does not exist at the country level, though the process provides for the county to ask the local reform commissions for clarification of reform plan details) for reform proposals will be provided by the county. However, the reform commissions recognize that municipal, counties and state interests have their own privatization goals to accomplish, such that the preparation of a reform proposal should incorporate divergent views and, in effect, be a series of consensus driven privatization recommendations. Team members will remain sensitive to competing interest as reform proposals are drawn, and will introduce their business planning, financial, accounting, marketing, legal, and economist skills to the reform proposal in order to ensure that privatization, in the best commercial sense, is achieved.

LEGAL DOCUMENTATION

Legal documentation standards for privatization of the collectives and state owned entities is still unclear. The standards of operation, documentation, and structure for the commissions and county land commissions is similarly undocumented. Given the momentum that we saw during our visits, a significant number of privatization reorganizations can be expected to take place before any organized documentation standards can be put in place. In fact it appears likely that one of the contributions that could be made by the A.I.D. team in this project will be organization of consistent documentation for the projects being supported to assure documentation that conforms with generally accepted international legal and accounting standards.

Legal documentation, to be created within the context of the existing legal environment, in conjunction with local counsel, will be geared toward the delineation of rights and responsibilities of ownership and the transfer thereof.

SECTION SIX

TECHNICAL ASSISTANCE TO PRIVATE ENTERPRISES

Assistance to be provided during this project can be classified as follows:

A. Small Enterprise Development

B. Training: Finance, Management, Marketing, Production

C. Coordination with other U.S. Government-funded activities, as directed by A.I.D./Estonia.

As part of the field work the team members have made initial contacts for cooperation with the IESC and VOCA representatives in Estonia. These two organizations have expressed willingness and interest in working with project personnel on training support to our activities. Training, internships, and selected technical assistance are the most likely ways of interface with these organizations. Interest in working with Peace Corps, Land o' Lakes, and other A.I.D. supported projects has also been expressed to the appropriate officials in Tallinn and Washington.

SECTION SEVEN

PHASE II SCOPE OF WORK

A Phase II scope of work has been prepared based on the team consensus for selection of Vaike Maarja as the target farm and processing enterprise for privatization. The scope of work reflects the additional broadening of the impact to the other members of the dairy industry suggested by Mr. Almaguer and Mr. DeGraffenreid as part of the adjustment to a shorter privatization time frame.

The schedule of implementation, Phase II Scope of Work, and objectives are summarized below. Drafts of this information have been circulated to A.I.D. for review.

Phase II will consist of three distinct stages. The three stages are:

Transaction Planning and Development: Transaction oriented planning and development with the collective farm identified above from Phase I triage to result in completed transactions-- transfer of ownership — subject to limitations on ownership contained in existing legislation; to include, at a minimum, a production unit, a processing unit, and development of an input/marketing unit. Active on site planning began 23 August, with expected preparation of transaction-ready unit(s) by October 30. The activities from this stage of work will be carefully documented for use in the remaining stages.

Seminar for Reform and Land Commissions: Seminars at three locations in Estonia to be held during the first week in November, at the invitation of A.I.D., in conjunction with Deloitte and Touche, Development Alternatives, Inc. and Geonomics Institute. The purpose of these seminars is to provide an introduction to reform commissions of different models for voucher systems, accounting methodologies, valuation procedures, business and strategic planning, marketing opportunities, legal issues, etc.

"On Demand" Support to Reform and Land Commissions: Follow up planning and on-site visits for the new owners of privatized businesses and continued support to the reform and land commissions. USAID contractors such as VOCA and IESC would be integrated closely into these programs.

Phase II Workplan and Timeline, with team member presence indicated, follows.

ESTONIA DAIRY INDUSTRY PRIVATIZATION
Phase II Workplan Timeline

AUGUST 1992

I. Counterpart consensus
- -Reform commission meetings
- -Enterprise meetings

II. Privatization readiness; Determination of state of:
- -Asset inventory
- -Valuations/methodology
- -Accounting
- -Historical financials
- -Memberships

III. Workshop planning

IV. A.I.D. meeting:
- -Phase I findings
- -Phase II resources
- -Discussion of use of possible additional resources

V. Other U.S. Government program agency coordination:
- -VOCA
- -IESC
- -Peace Corps

VI. Benchmark matrix

VII. Logistics

Team members present:

Nicholas Baughan
Daniel Hogan

ESTONIA DAIRY INDUSTRY PRIVATIZATION
Phase II Workplan Timeline

SEPTEMBER 1992

I. Workshop planning
- -Site selections
- -Invitations
- -Sponsorship

II. Coordination with U.S. Government programs (VOCA, IESC, Peace Corps)

III. Distribution systems planning - consensus/local support

IV. Enterprise level issues for selected candidate:
- -Reform proposal
- -Pro forma business plan/strategy
- -Identify ancillary assets
- -Pro forma financials
- -Investment opportunities

V. Phase I Report delivery

Team members present:

Nicholas Baughan
Richard Magnani
Bob Otto
Doyle Peterson

ESTONIA DAIRY INDUSTRY PRIVATIZATION
Phase II Workplan Timeline

OCTOBER 1992

I. Transfer of ownership
   -Production entity
   -Processing entity

II. Establishment of trade association

III. Implementation of U.S. Government programs coordination

Team members present:

Nicholas Baughan
Maureen Berry
Daniel Hogan
John MacKillop
Richard Magnani
Doyle Peterson
Joe Pietrus
John Rooney
Alan Sernie

ESTONIA DAIRY INDUSTRY PRIVATIZATION
Phase II Workplan Timeline

NOVEMBER 1992

I. Workshops: November 2-6

II. Transition advisory services

III. Continued privatization support for selected candidates

IV. Continued trade association support

V. Monitoring and evaluation update

Team members present:

Nicholas Baughan	John MacKillop
Michael Claudon	Richard Magnani
Jean Gilson	Bob Otto
Daniel Hogan	Doyle Peterson

ESTONIA DAIRY INDUSTRY PRIVATIZATION
Phase II Workplan Timeline

DECEMBER 1992-JANUARY 1993

I. Preparation of year-end financial statements

II. Phase II Report preparation

III. Phase III development

Team members present:

Nicholas Baughan
Maureen Berry
Michael Claudon
Doyle Peterson

APPENDIXES

I. LIST OF PHASE I VISITS

II. BASELINE DAIRY EVALUATION MATRIX

III. ESTONIAN AGRICULTURE--SUMMARY CHARACTERISTICS

IV. INPUT/DISTRIBUTION SYSTEMS DIAGRAM

V. PHASE I TEAM MEMBERS

APPENDIX I

TEAM VISITS: JULY 1 TO JULY 30, 1992

Ministry of Agriculture

Mr. Aavo Molder (minister)
Mr. Olav Kart
Mr. Meeliste
Ms. Malle Klaassen
(2 staff specialists on input supply and chemicals)

Ms. Inge Barkala
Mr. Renaldo Mandmets
Mr. Elmar Waldmann

Estonian Dairy Association
Mr. Arno Kannike
Mr. Mati Kalamees

Giga Aktsiaselts (JV with Finnish Company)
Mr. Tiit Veeber

Tartu Kombinaat
Mr. Mati Pihlak
Various plant personnel (manager, quality control, engineer)
Rannu Cheese Plant

Tartu County Government
Mr. Ants Verliin
Mr. Juri Kruusealle

School of Agrarian Management
Mr. Juri Jarviste
Mr. Juri Ginter
Mr. Mati Tamm

Land Bank (Tartu)
Mr. Lembit Kitter
Mr. Anton Viigi

Maפleht National Rural Newspaper
Mr. Raul Kilgas

TEAM VISITS: JULY 1 TO JULY 30, 1992 (Cont'd)

Poltsamaa Dairy Plant

Mr. Jaak Oidram

Poltsamaa Municipal Government

Rapla Cooperative Farm
Mr. Mart Viileberg

Tallinn Dairy Plant
Mr. Aare Annus

Tallinn Poultry Factory
Mr. Madis Peegel
Mr. Enn Kadde

Aatmaa Dairy Farm
Mr. Tet Kukk

Kalju Collective Farm
Mr. Andres Vinni

Lennau Collective Farm

Kavastu Private Milk Processing Plant

Emajoe Collective Farm
Reform Commission in Luunja

Ulenurme State Farm
Mr. Toomas U. Saag

Estkompexim (Estonian/ Swiss JV)
Mr. Juri Asari

Vaike-Maarja Collective Farm
Mr. Peeter Albi
Mr. Endel Maesepp

Viljandi Collective Farm

Viljandi Maakond
Mr. Ants Velleste, Agriculture Councilor

Viljandi Teraviljasasduste Kombinaat
Mr. Vello Kala

TEAM VISITS: JULY 1 TO JULY 30, 1992 (Cont'd)

Volunteers in Cooperative Assistance (VOCA)
Ms. Maive Rute

Kose Quark Factory

Private Estonians
Mr. T. Ivask

Baltic News Services
Mr. Alan Martison

Estonian Grain Board
Mr. Yuta Keskula

APPENDIX II

Baseline Dairy Evaluation Matrix

CRITERIA DAIRY SITES	Status As Of Date	Bacteria Count	Fat and Protein Content	Dairy and Milk Shelf Life	Milk Powder Exports	Cheese Exports	Energy Consump-tion	Asset Valuations	Accounting Standards	Legal Documen-tation
Vaike Maarja Cheese Plant										
Vaike Maarja Reform Commission										
Vaikye Maarja Collective (farm)										
Vaikye Maarja Support Services										
Poltsamaa Cheese Plant										
Poltsamaa Collectives (multiple farms)										
Poltsamaa State Farms (multiple farms)										
Poltsamaa Reform Commission										
Poltsamaa Municipalities Commission										
Tartu Milk Kombinaat (general)										
Cheese Plant										
Fluid Milk Plant										
NDM Plant										
Butter Plant										

Baseline Dairy Evaluation Matrix

CRITERIA / DAIRY SITES	Status As Of Date	Business Plans	Medium and Long Term Strategies on Farms or Processing Plants	Yogurt Produc- tion	Number of Private Owned Enterprises	Number of Enterprises that are Financially Viable	Existence and Efficiency of Production and Processing Distribu- tion Networks	Existence and Efficiency of Input Distribution Networks	Number of Inputs Produced in Estonia as a ratio of those imported	Existence and Number of Marketing Associations and their Efficiency
Continued										

Baseline Dairy Evaluation Matrix

CRITERIA DAIRY SITES	Status As Of Date	Status and Quality of Packaging	Ability to Pack for Consumer Use or Export Market	Number of Separate Viable Entities per Munici-pality	Number of Shares Out-standing	Existence of Formal and Enforced Quality Control Standards for the Business and/or Nationally	Production of Milk per Unit of Feed	Production of Milk per Person Year of Input	Production of Milk Products per Person Year of Processing Input	Adhere to Employment and Pay Standards
Continued										

APPENDIX III

ESTONIAN AGRICULTURE - SUMMARY CHARACTERISTICS

Estonian agriculture is undergoing a rapid metamorphosis from a centrally-planned agricultural production center to a market-driven agricultural niche producer.

- It is suffering from a lack of direction and a dearth of sound management practices.
- To survive, the sector will need investment capital, increased profits, and technical assistance from donors.
- Privatization will allow the state to look rationally at agricultural assets and determine their most efficient productive use.
- The privatization of agricultural assets will be a much more complicated process than the nationalization of those same assets which took place immediately after the establishment of Soviet control in 1940.

Significant debate continues on the national, country, and local level, regarding the restoration of agricultural assets.

- The country enjoyed a high level of agricultural output during the period of independence from 1920-1940 (on a level comparable with Norway and Finland); this output was accomplished by a well-motivated and deeply-rooted agrarian society of small land owners.
- Restitution of these lands is a stated goal of the present government, yet it is clear that modern agricultural techniques do not lend themselves to the types of agricultural practices prevalent during the period of independence.

The Law on Agricultural Privatization of May 12, 1992 provides for the privatization of agricultural (except land), under the authority of local Reform Commissions.

- These commissions have been empowered to approve the privatization plans of state and collective farms, subject to confirmation of the county government in which the assets are located.
- The commissions are also responsible for the compilation and valuation of all agricultural assets.

"Spontaneous" privatization has occurred.

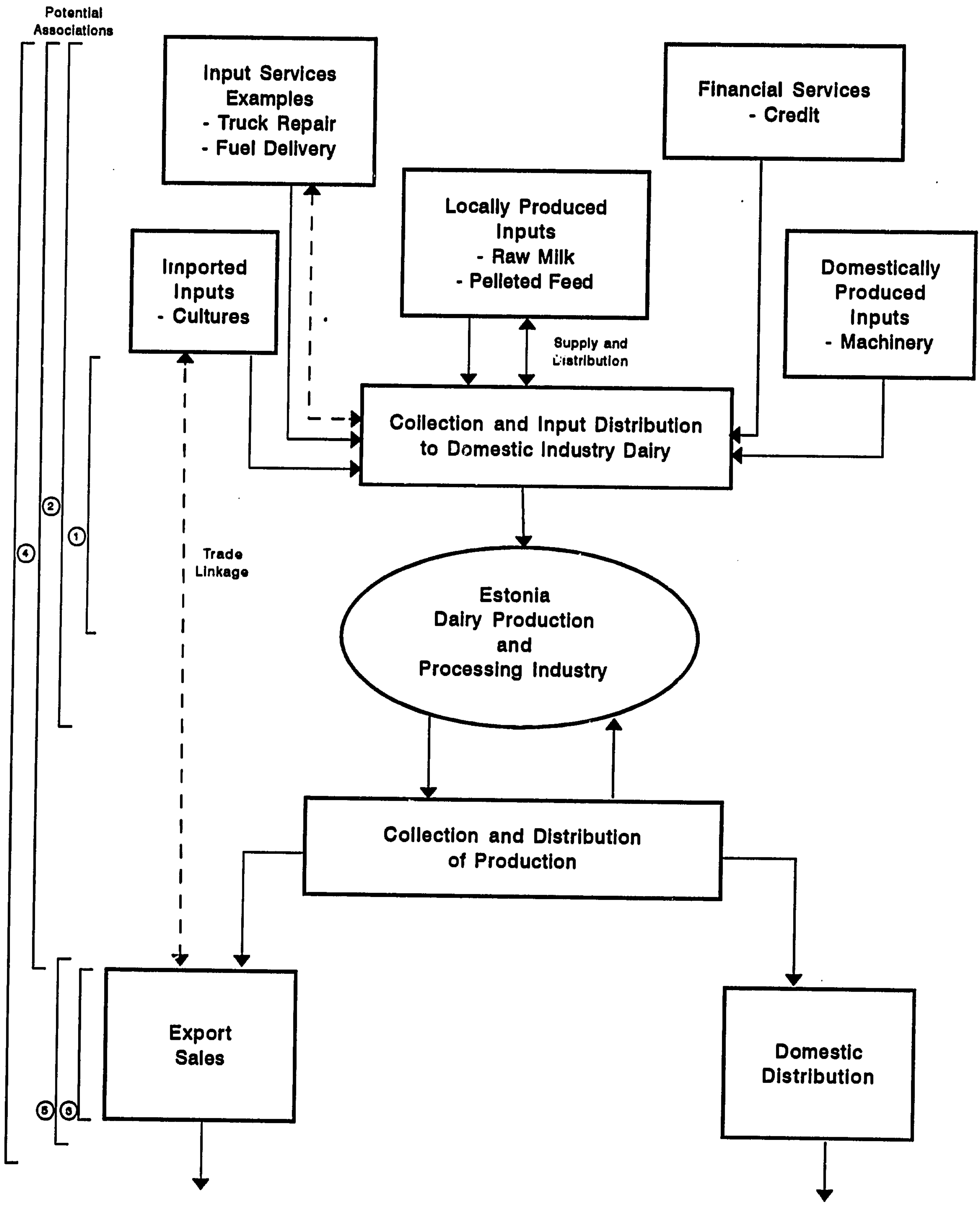
- Certain collectives and state farms have formed joint stock companies.
- Employees and management are shareholders with the right to use assets formerly viewed as common property.
- These legally incorporated companies have only tacit approval of the central government in the privatization process. It is conceivable, however, that these companies will form the basis of emerging private entities within the sector.

Tumultuous change within the sector has resulted in an overall production decrease. For example, local consumption requirements of 450 kg of milk products and 80 kg of meat products have been met in recent years by the importation of animal feed grain from the Soviet Union in the amount of 500,000 tons per annum. In 1991-1992, due to disruptions in the former Soviet Union and the lack of liquidity in the Estonian banking system, a shortage of feed imports has caused a 50 percent reduction in meat production and a 40 percent reduction in milk production. Production is expected to decline further due to a lack of working capital on most farms.

Without significant capital investment, improved profitability, technological improvements, free market access, and donor participation, Estonia will continue to experience food shortages and economic dislocation.

APPENDIX IV

EXAMPLE INPUT/OUTPUT DISTRIBUTION ASSOCIATION



APPENDIX V

PHASE I TEAM MEMBERS

Development Alternatives, Inc.

Mr. Robert Otto
Ms. Jean Gilson
Mr. Daniel Hogan
Mr. Doyle Peterson
Mr. Richard Magnani

Geonomics Institute

Mr. Michael Claudon
Mr. John Rooney